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Original Articles.

SOME POINTS IN THE DIAGNOSIS OF TRAUMATIC INJURIES OF THE CENTRAL NERVOUS SYSTEM.*

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In as brief a space as possible I shall endeavor to consider some differential points in the diagnosis of various affections of the central nervous system, laying especial stress on such as result from traumatism. I shall include in these the psychic effects of shock and suggestion.

The first point to which to call attention is found in a short paper written by me and read by title, as I was not present, at the Fourth Annual Meeting of the Academy of Railway Surgeons, held at Chicago, in October, 1897. In this I pointed out that damages were occasionally recovered from corporations for the effects of disease that had existed many years before the occurrence of the accident in which the plaintiff testified, under oath, he had received the injuries for which he was claiming damages[1]. In the first case, a brief abstract of which occurs in the paper to which reference has been made, a man, two years after having been thrown out of his berth in a Pullman sleeping-car, obtained a large sum of money from a railroad for wasting of the right leg below the knee. Some time after the claim was paid, it was ascertained that the man had suffered from poliomyelitis in childhood, and that the muscular defect dated back many years prior to the occurrence of the accident in which he claimed to have been permanently injured.

The second case occurred in the person of a traveling salesman, who was severely shaken up in a railroad accident, July 30, 1892. One or two years subsequently he sued the railroad and was awarded $7000, on account of paralysis agitans, from which he suffered at the time the suit was brought. The history of the man showed that in 1880 he was thrown from a carriage and six years later, or in 1886, the right hand and arm began to be affected by a rhythmic tremor, which was fine, most pronounced after exhaustion, but momentarily disappeared on moving the arm. This was a case of paralysis agitans dating from 1886, instead of from 1892, the date of the accident.

How are we to determine whether the occurrences of certain diseases date from the time of the accident in which a person alleges he was injured, or whether the lesion had its origin years prior to the accident? The only absolutely safe rule in these cases is for the railroad surgeon, oculist, physician and neurologist to make a careful and systematic examination of the injured as soon after the occurrence of the accident as possible. Persons who are severely injured are very anxious to receive the best possible medical attention soon after the occurrence of the accident, and at these times they are very communicative and are eager to give the attending physician or surgeon all the information that they can concerning their personal history. In the first case to which reference has been made in this paper, the presence of muscular atrophy and reaction of degeneration, a few days after the occurrence of the accident, when the railroad surgeon was first consulted, would have been conclusive proof that the muscular defect antedated, by months or years, the injury to the leg. In the second case, the peculiar position in which the body and limbs are held in paralysis agitans would have enabled the medical examiner to make a diagnosis.

A carefully gleaned history at the time of the accident will often reveal the fact that the subject had been hysteric, neurasthenic, or a sufferer from intrapelvic trouble prior to the injury from which all the patient's suffering may be dated subsequently to the accident, or at the time the suit for damages is instituted. Having satisfied ourselves that the symptoms of the alleged injuries have been developed subsequently to the accident, the next points to be determined are: Is the person suffering from any demonstrable organic lesions of the central nervous system? Is the disease neurasthenia, hysteria, or is it feigned?

The time at my disposal for the consideration of these important questions is far too limited to enable me to give more than a mere outline of the methods which I pursue in the investigation of these cases

Is the patient suffering from any demonstrable organic lesion of the central nervous system? This, as a rule, is not difficult to determine if a thorough and systematic examination is made of all the organs of the body, but especially of the entire nervous system, followed by other examinations, when the first has failed to define the meaning and importance of all the symptoms.

In our examinations, we must bear in mind that a person may be suffering from an organic lesion of the nervous system, and at the same time manifest symptoms of hysteria and neurasthenia. Together with these symptoms, others may be present that are evidently feigned. Because a person feigns we must not denounce him as an impostor. In examining persons suffering from real or imaginary injuries of the central nervous system, the last affections to be thought of are hysteria and neurasthenia. Not until exhaustive examination, or examinations, have failed to reveal a single positive sign of organic disease, should we make the diagnosis of hysteria or neurasthenia. It must be remembered and constantly borne in mind in our examinations of the cases under discussion, that the presence of one positive sign of organic trouble is of more importance in enabling us to make a diagnosis of an organic lesion than the presence of a multitude of symptoms, functional in

*Read before the American Academy of Railway Surgeons, Omaha, Neb., Oct. 12-13, 1899.

[1] THE JOURNAL, April 23, 1897.

character, in justifying us in excluding organic disease.

There is an array of symptoms which strongly point to the presence of organic disease, but which may entirely be due to hysteria. On the other hand, there is another group of symptoms which often appear hysteric in character that in reality are due to organic lesion of the central nervous system. These affections I shall not attempt to discuss until I come to consider the differential diagnosis between hysteria and certain organic diseases.

TRAUMATIC NEURASTHENIA.

Unfortunately we are all too familiar with nerve exhaustion, nerve fatigue, commonly known as neurasthenia. The traumatic and non-traumatic forms are the most frequent nervous affections the general surgeon and practitioner of medicine, the gynecologist and neurologist have to meet. It is probable that nearly one-fourth of the traumatic nervous affections are neurasthenic in character. If I were asked for one symptom that is found more frequently in traumatic neurasthenia than in the non-traumatic form, I should answer, "lumbago." This symptom may be found in both etiologic forms of neurasthenia, and we often meet with the traumatic form in which it is absent. It must be borne in mind that neurasthenia may be present in hysteria, may be associated with any organic disease, and develop as a result of the profound functional disturbances to which the various organs of the body are subject.

It is unnecessary for me to go into a detailed description of neurasthenia. This affection is attended by a sense of exhaustion and lack of reserve force, but not by abolition of power, sensory and motor, such as we find in hysteria. There is a lessened power of physical and mental endurance. The patient may temporarily show a considerable amount of muscular power, but this is soon exhausted and may be followed by hours or days of increased fatigue. Every outlay in energy is paid for on the part of the patient by hours of suffering and exhaustion. Lack of mental endurance is shown by the fatigue that follows reading or any other mental effort. There is a mental and physical irritability, annoying to the patient, and often exasperating to the physician. There is frequently a sense of great physical and mental depression, often attended with doubt, hesitancy and great apprehensiveness. Sometimes the depression is so great as to make the physician suspect a psychosis, such as melancholia; indeed, it is not infrequently difficult to draw the line between melancholia and neurasthenia with great mental depression. Emotional manifestations, such as shedding tears, and outbursts of laughter, are not infrequent. Most authorities agree that insomnia is one of the most troublesome symptoms of neurasthenia. Pain and hyperesthesia are common symptoms. The pain is most prominent in and around the spinal column, in the neck and in the head, but it may be complained of in almost any portion of the body. Pressure over the painful regions of the spine or areas of hyperesthesia is usually attended by increase of the pulse-rate. In non-traumatic cases the pain is usually most severe in the upper portions of the spine and in the back of the head. In the traumatic ones, the lumbar region is usually the seat of the greatest pain and tenderness. Paresthesia, such as burning, "pins and needles" sensation, crawling, is not infrequent in neurasthenia. While hyperesthesia is common, anesthesia does not occur. If the latter symptom is present the case is looked on as one of hysteria. Central vision is usually normal, but the peripheral fields soon become exhausted, when the fields appear narrowed. Asthenopia is usually present. Auditory hyperesthesia is a common symptom. The motor symptoms consist of lessened power and lack of endurance for muscular effort continued any length of time beyond a few moments. There is neither paralysis nor contracture such as is found in hysteria. The deep reflexes are increased, the superficial normal, lessened or increased. The trophic changes usually relate to those attendant on general malnutrition. There is nothing in the respiratory changes that is of much diagnostic value. The pulse-rate, on the other hand, is of great importance. This is, as a rule, considerably increased, and is often greatly accelerated on the slightest exertion, or the least excitement. Knapp says: "One of the most striking features of traumatic neurasthenia is in the rapidity of the pulse. In twenty-five cases it ranged from 72 to 140, the average being 95, and in only three cases did it fall below 80."[2]

The principal diagnostic symptoms of neurasthenia are the following: Exhaustion, without complete loss of power; insufficient reserve force to enable the patient to recuperate rapidly after he has been compelled to exert himself, either mentally or physically; intense self-consciousness and a habit of introspection. The patient is cognizant of the perverted function of nearly every organ in the body. Numerous subjective sensory disturbances, mental depression, and apprehensiveness, undue emotional manifestations, irritability and rebellious insomnia are often present. Pain and tenderness over the back; in the traumatic cases it is most intense over the lumbar region; in the non-traumatic, pain and tenderness are most pronounced in the upper region of the spine, at the base of the brain, or at the junction of the spine and skull. There is hyperesthesia and paresthesia, without anesthesia; muscular weakness and fatigue, without paralysis or contracture; narrowing of the fields of vision after exhaustion of any kind, especially after the retina has become exhausted from repeated examinations of the visual fields. Auditory hyperesthesia exists and increased deep reflexes. The accelerated pulse-rate is greatly influenced by exercise, pressure over the tender spots, exhaustion, irritation or excitement. Vasomotor disturbances, such as profuse perspiration over the entire body, or over a portion of it, are not uncommon. It is rare to find a case of neurasthenia unattended by more or less disorder of the digestive organs.

TRAUMATIC HYSTERIA.

Hysteria and neurasthenia are closely allied diseases. In fact the pathology of each is strikingly similar. In the study of their symptomatology it is impossible to say where neurasthenia ends and hysteria begins. It is probable that the latter is generally preceded by a more pronounced neurotic taint than the former. In other words, heredity plays a more important part in the causation of hysteria than it does in neurasthenia. The neurasthenic is commonly hysteric and the hysteric almost invariably presents some symptoms of neurasthenia. The latter not infrequently passes into hysteria, but typical hysteria never passes into neurasthenia. Hysteria denotes greater disturbance of cerebral function and more evidence of cellular degeneration of the cerebral cortex than does neurasthenia. It is probable that neither case can exist long without some cell changes taking place in the cerebral cortex.

What is the difference between traumatic and non-traumatic hysteria? So far as my limited experience enables me to answer this question, I should say that in

[2] Nervous Diseases by American Authors. Edited by Dercum, vol. v, 18.

the former the character of the accident, or rather the location of the injury sustained, or supposed to have been sustained, by the subject determines to a greater or less extent the location of the pain of which most complaint is made, the seat of the paralysis, contracture or anesthesia.

For diagnostic purposes, if we take the symptoms of neurasthenia, a short abstract of which is given in this paper, and add to them the stigmata of hysteria, such as hemianesthesia, spots of anesthesia, the tender points, the various and varying forms of paralysis, contracture and "crossed amblyopia," with contracted fields of vision, we would have a typical case of hysteria. It must not be forgotten that it is exceedingly rare, in this country, at least, to meet with a case of hysteria in which all the stigmata or ear-marks of the disease, are present. Especially is this so in regard to the paroxysms of hysteria. The latter are not classed among the stigmata of the disease, but among the general phenomena of only a certain group of cases.

The following are some of the principal diagnostic points of the stigmata of hysteria[3].

HYSTERIC ANESTHESIA.

1. In hemianesthesia the loss of sensation is often profound, extending from the crown of the head to the sole of the foot—this is rare in organic disease, but does occur in certain lesions.

2. The reflex action of the skin over the anesthetic areas is normal or nearly so—not so in organic disease.

3. The pupils dilate when the skin of the neck of the anesthetic side is irritated—in organic disease with anesthesia of the skin over the neck, the pupils do not dilate when the skin is irritated.

4. The fingers of the anesthetic hand can still be used, without the aid of sight, in the performance of fine and dexterous movements—if the hand is anesthetic from an organic lesion, delicate movements of the fingers can not be accomplished without the aid of sight.

5. When the arm or leg is affected, the anesthesia may cease abruptly at the wrist, or ankle, at the elbow or knee, at the hip or shoulder or between the joints. This is known by the names of the glove and stocking anesthesia—this is only found in a few organic lesions.

6. The ovarian tenderness is often greater on the anesthetic side. The other tender spots on this side persist, notwithstanding that analgesia over all other portions of this side is profound—this is contrary to what we find in organic disease of the nervous system.

7. The loss of sensation may extend up to, or just beyond, the median line in front, but may not reach the median line in the back. In some cases the loss of sensation does not extend up to the median line either anteriorly or posteriorly—in organic disease the anesthesia follows the course of the distribution of the nerve-supply.

8. The anesthesia may come on suddenly, as from traumatism; it may develop or increase after a hysteric paroxysm; it may increase during the examination, especially if a suggestion to that effect is made, and it often increases at the menstrual period; it is frequently changeable from day to day, and may be transferred from one side to the other, especially by the use of suggestion, or by the application of magnets—the opposite holds good in anesthesia from organic lesions.

9. The anesthetic area ends abruptly—the same thing is found in some cases of syringomyelia.

10. In hemianesthesia there frequently is a condition of "crossed amblyopia," the eye most affected being on the side on which sensation is lost—I have never met with this combination of symptoms from organic disease of the brain.

HYSTERIC HYPERESTHESIA.

1. The areas of increased sensitiveness are often ill-defined, changeable and may be bordered by areas of anesthesia—this is not found in organic disease.

2. Deep-seated tenderness, or the hysterogenic zones are most pronounced on the anesthetic side—not so in organic disease.

3. When the pain and tenderness are superficial, deep and steady pressure, especially over the spine or abdomen, may give a sense of relief, after the excitement caused by the contact of the hand has passed away—rarely true in organic disease.

4. The painful joints may show no local changes, nor any other evidences of organic disease, and the patient is very averse to the slightest movement of the affected joint.

POINTS IN DIAGNOSIS OF HYSTERIC EYE AFFECTIONS.

1. If vision is lost or greatly lessened, the patient acts as though she does not see, yet by the proper tests it may be demonstrated that she does see—not so in organic affections.

2. In "crossed amblyopia" the worst eye is on the side corresponding to that on which anesthesia is situated, with or without paralysis or contracture, but the face is not affected by any disturbance of its motor power—contrary to what is found in organic disease.

3. In homonymous hemianopsia both corneæ are anesthetic—such a condition of symptoms does not occur from organic brain lesions.

4. In dyschromatopsia blue may disappear before red.

5. In achromatopsia everything appears gray.

DIAGNOSTIC POINTS AMONG MOTOR PHENOMENA OF HYSTERIA.

1. In aphonia, etherization of the patient, or faradization of the throat will cause her to speak. Talking during sleep may occur, and singing is possible in many cases. The aphonia may come on suddenly from emotional disturbances, or from traumatism. Paralysis of the vocal cords is always bilateral in hysteria; unilateral paralysis of these cords is always due to organic disease. The aphonia usually disappears suddenly.

2. In hemiplegia the face is not paralyzed, although it is often anesthetic on the side corresponding to that of the hemiplegia—it is probable that in a few cases the face is paralyzed in hysteria, but the general rule as above stated holds good; we must be careful not to mistake spasm of the muscles of one side of the face for paralysis of the other side.

3. The leg is dragged or shuffled, the foot is not swung outward in bringing it forward, and the toes do not catch on the ground or floor, as is the case in hemiplegia from organic brain disease.

4. The nutrition and electric conditions of the muscles are well preserved.

5. The deep reflexes may be normal and the plantar absent on both sides. If the former are increased, as is often the case, the difference between the two sides is not great. Absence of the plantar reflexes on one side rarely occurs in hysteria. Typical ankle-clonus which persists for several seconds rarely occurs. In organic disease producing hemiplegia both knee-jerks are often increased, but it is greatly in excess on the hemiplegia side.

6. On testing the strength of the flexor muscles, best

[3] Eskridge on "Hysteria"; Sajous' Annual and Analytical Cycloped. of Prac. Med., vol. iii.

observed in the hands, there is abnormal contraction of the extensor muscles. (Gowers.)

7. The flexor contraction of the hand is not lessened by forcibly flexing the wrist, as occurs in organic disease in which contracture has resulted.

8. Ptosis of hysteria is not due to paralysis of the levator muscle, but to spasm of the orbicularis, and the spasm is increased on requesting the patient to look up. If the ptosis is bilateral the head is thrown backward on trying to look upward. If the head is held by some one the patient attempts to look upward, both orbiculares contract. (Gowers.)

9. The ataxic gait is exaggerated beyond that of organic disease, and has the same psychic character as the muscular movements of the hysteric convulsions.

10. Astasia-abasia, inability to stand or walk, although the legs are moved well while the patient is lying in bed, is always presumptive evidence of hysteria.

11. The tremor of hysteria usually ceases during repose if the patient thinks that she is not watched, but it sometimes continues while the patient is sitting or lying. Voluntary motion increases the tremor. If the patient is requested to touch a small object with a finger of one hand, little difficulty is experienced in doing this, but after the finger has been in contact with the object a short time, irregular jerky movements of the arm begin, differing from the tremor of disseminated sclerosis, in which great effort is frequently required in bringing the finger in contact with the object, but this accomplished, the tremor ceases immediately. (Buzzard).

It is probably safe to say that paralytic incontinence of urine and feces, rarely, if ever, occurs, except possibly during the apparent semiconscious condition, following a severe paroxysm in which convulsions have been prominent. Therefore the presence of incontinence of either the bladder or bowel should excite suspicion of organic disease.

POINTS IN DIFFERENTIAL DIAGNOSIS OF HYSTERIA.

In the vast majority of instances the diagnosis of hysteria is comparatively easy if one is familiar with all the "ear-marks" of the disease. Much precision and certainty is lost to that physician who regards hysteria as a protean disease, without constant and characteristic symptoms. While it is true that on superficial observation the symptoms of hysteria at times may appear to mimic those of nearly every organic lesion of the nervous system, viscera, and joints, yet, by a careful study of it, especially of the stigmata, their onset, course and duration, it will be discovered that hysteria is a definite and distinct disease with its own laws and clean-cut symptoms, and that the mimicry is but so in appearance. It must never be lost sight of that hysteria and organic disease may be associated. The two diseases may exist in the same person at the same time. Indeed, in one who is strongly predisposed to hysteria the development of organic disease will give rise to this affection. In such cases it is important to bear in mind that the pronounced and more obtrusive symptoms of hysteria may, and frequently do, overshadow, if they do not entirely obscure, the indistinct symptoms of organic disease. A failure to recognize this fact is, I am quite confident, to blame for many mistakes and not a few blunders that I have encountered in the practice of some excellent physicians.

The first duty of the physician on meeting with a case that seems to be hysteric in character is to determine, if possible, by repeated, thorough and systematic examinations, whether or not there is any organic lesion present. The presence of a multitude of symptoms, all pointing to hysteria, is not sufficient to rest a diagnosis on, if there is one symptom that positively indicates an organic lesion.

Cortical Lesions of the Brain.—Paralysis and anesthesia of the distal portion of a limb from a cortical lesion should never cause any difficulty in the diagnosis from hysteria, unless the patient is also the subject of the latter disease; yet I have seen cases in which this mistake has been made, in one instance, too, by a neurologist of no mean ability. In the first place there is absence of the stigmata of hysteria. The paralysis and anesthesia begin gradually, and the latter is rarely ever profound or extensive. If the lesion is irritative and attended by contracture, muscular wasting will occur. The spasm is at first limited and Jacksonian in character. The deep reflexes of the affected limb are excessively increased, while those of the other limbs may remain normal or nearly so. Soon other symptoms of organic lesion, especially choked discs and evidences of intracranial pressure, develop. The reverse of all these symptoms obtains in hysteria. In the event that the patient were hysterical the presence of the positive symptoms of a fecal lesion of the brain would make the diagnosis clear.

Cerebellar Tumor.—Most of the cases of tumor of the brain that have been mistaken for hysteria have been located below the tentorium. I have one such case under my care at present. This patient was treated eighteen months for neurasthenia and hysteria. It is fair to state that she comes of hysteric stock, and had the most prominent of the stigmata, even to the paroxysmal symptoms. A careful history, which revealed the fact that certain symptoms pointing to organic disease began gradually eighteen months ago and has since slowly, but steadily, increased, together with unilateral facial paralysis and double choked discs, make the diagnosis easy.

Hemianesthesia from Brain Lesion.—This is extremely rare unless associated with some motor disturbance. The deep reflexes, especially the knee-jerk, are increased to greater extent than is found in hysteria; hemianopsia will likely be present, and the special senses on the hemianesthetic side are less affected. In hysteria there is probably "crossed amblyopia." The hemianesthesia that occurs in alcoholism and in some cases of metallic poisoning, especially from lead, is evidently hysterical in its nature.

Hemiplegia.—The paralysis of one side of the face; the state of the reflexes—the deep excessive, and the superficial slight, or abolished, on the paralyzed side; the absence of "crossed amblyopia;" or profound affection of the special senses would exclude hysteria as the cause.

Hemianopsia.—If due to organic brain lesion in the occipital lobe, this may be the only symptom, except, perhaps, pain in the head. It is not changeable and persists for a long time, if not for life. In hysteria it is transient, changeable, the other fields are narrowed, the conjunctivæ of both eyes are anesthetic, the color-fields are probably reversed, and other stigmata of hysteria are present.

Paraplegia.—If due to myelitis affecting the lumbar region, paralysis of the anal and vesical sphincters, the loss of the reflexes, muscular wasting, bed-sores, and the reactions of degeneration would stamp the nature of the trouble. If the cervical cord or the lateral columns were the seat of the lesion, the exaggerated reflexes with true ankle-clonus and other evidences of organic disease would serve to determine the character of the trouble. In poliomyelitis, the muscular wasting, loss of reflexes,

and the reactions of degeneration would exclude hysteria as the cause of paralysis. Syringomyelia has many symptoms in common with hysteria, but the muscular wasting, often the weakness of sphincters, the changes in the reflexes, and the absence of the stigma of hysteria would be sufficient on which to base a diagnosis. Multiple neuritis presents organic changes, as shown by reflexes, wasting, and the reaction of degeneration.

Disseminated Sclerosis.—Buzzard says: "Multiple sclerosis, like hysteria, is common in women at puberty; a history of some moral shock often precedes both; there are few cases of multiple sclerosis in which there are not hysterical symptoms added; and many symptoms of the former have long been looked upon as hysterical." The same writer states that the plantar reflexes are usually well marked in multiple sclerosis, and feeble or absent in hysteria. Paralysis is usually sudden in its onset, and more complete and flaccid in the latter than in the former. When blindness occurs in one eye, it is generally complete at first and comes on suddenly in hysteria, whereas in multiple sclerosis absolute blindness in one eye is rare. In the latter the acuity of vision lessens gradually with contraction of the visual fields, until the eye is almost useless; then vision improves in this eye and fails in its fellow. Atrophy of the optic nerve and nystagmus occur in multiple sclerosis, but are probably never of hysterical origin. The tremor of multiple sclerosis may be simulated by an irregular tremor occurring on voluntary movement in hysteria, but in the latter the excursions are usually less; there are a tardiness of the initial muscular effort and a contraction of the antagonistic muscles. Gowers lays considerable stress on the diagnostic importance of the presence of the last symptom. The hysterical patient affected with tremor will often touch a small object with the index finger without much difficulty, but after the finger has remained a few seconds in contact with the object the arm becomes affected with an irregular jerky tremor, differing from the tremor of disseminated sclerosis, in which great effort is frequently required in bringing the finger in contact with an object, but as soon as this has been accomplished the tremor ceases.

Neurasthenia.—Theoretically the difference between hysteria and neurasthenia is well marked. The former is a disease with its stigmata and paroxysmal symptoms, all or any of which may come on or end suddenly; the latter is an exhausted state of the nervous system, without complete loss of power in any direction, having a gradual beginning and ending and unattended by stigmata or paroxysmal symptoms. Practically, however, hysteria is a psychoneurosis, and neurasthenia, while it may begin as a simple neurosis, frequently becomes a neuropsychosis. Nerve exhaustion in a person who is predisposed to hysteria may cause the development of the typical symptoms of the latter disease. In cases in which hysteria and neurasthenia are associated a careful study of the manner in which individual symptoms have developed will usually enable one to determine which is the primary malady.

FEIGNING.

If the examiner understands his business and is careful and systematic in his examination, it is next to impossible for the maligner successfully to feign organic disease of the central nervous system.

It is exceedingly difficult for a maligner to simulate neurasthenia until he becomes, to a certain degree, neurasthenic himself. It is probable that a clever one may subject himself to a course of training that will ultimately lead to the development of neurasthenic symptoms. This probably can be done by insufficient food, anxiety, and a constant endeavor to simulate the disease for a considerable length of time, when the strain will begin to tell on the nervous system. In most of such cases, however, everything will be so exaggerated that the feigning will be apparent. Unless the patient is actually neurasthenic he can not simulate the rapid pulse, the influence of exercise on the heart, the local sweating, and the general symptoms of exhaustion. It must be remembered that in most cases of true neurasthenia there is, after a time, some exaggeration of symptoms.

In most patients I have met with hysteria, there has been an exaggeration of some symptoms. In this disease the suggestibility and impressionability of the patient are enormously increased. In cases that are under litigation, unless great tact is used by the examiners and the attorneys for the plaintiff and defendant, a mild case of hysteria results in great exaggeration of some symptoms and the feigning of others. It is a comparatively easy matter to distinguish between a case of simple feigning and hysteria. The stigmata of the disease can not be successfully feigned, except by an intelligent physician, and a clever trained nurse who may be conversant with all the symptoms of the disease. Given a case of genuine traumatic hysteria, with the prominent stigmata well marked, it is not always an easy matter to say, in suspicious characters, just to what extent intentional feigning enters into the manifest symptoms.

In the discussion of the points in the diagnosis of traumatic injuries of the central nervous system, my paper has grown larger than I had intended, yet, I have left many important points untouched, and those that I have tried to make prominent I have failed to make as clear and easy to the railroad surgeon as he and I wish it might have been done, in this most difficult subject in the whole range of differential diagnosis.

DISCUSSION.

DR. E. W. LEE, Omaha, Neb.—The cardinal point of the paper of Dr. Eskridge, which has been so forcibly impressed on us, is that there is a tendency, when we examine neurotic patients, to make a diagnosis of hysteria before we find any true organic lesion. This is particularly true of a great many general surgeons and railway surgeons, and when a case of medicolegal importance is brought to them they are liable to consider the case as one of hysteria before they find any positive evidences of it. We know that there are many malingerers, people who are trying to get compensation out of corporations and are not entitled to it. It is natural for us to look on such patients as feigning, and the important point brought out by the essayist is this, that thorough, repeated and careful examinations should be made, and, if possible, we should discover some organic lesion before designating the case one of hysteria.

DR. L. E. LEMEN, Denver, Colo.—I wish simply to make a suggestion. The Union Pacific and the Denver and Rio Grande railroads, of which Dr. Eskridge is neurologist, are the only two roads that I know of in the country who have appointed neurologists. I saw the absolute necessity of having some competent man outside of a general railway surgeon to aid me in that line of work, and I must say that I have derived a great deal of benefit, as well as has my corporation—the former road—from his appointment. It is true, the management of the road did not see the necessity of it when I first made the suggestion, but after I had called attention to the salient points which would come from the appointment of a neurologist, the appointment was made.

DR. D. S. FAIRCHILD, Clinton, Iowa—I have had considerable experience in examining cases for settlement and preparatory to trial when a settlement could not be reached. There is one point, which was made by Dr. Eskridge, that is of great importance, i. e., the examination of a patient as early as possible

after the accident has occurred for the purpose of determining the existence of organic disease which may have been present before. He has pointed out the fact that changes which take place in the nervous system as a result of organic disease do not show themselves for some little time thereafter. If we make an examination early, we can determine with a reasonable degree of certainty whether such changes occurred before or subsequent to the accident.

The essayist has pointed out the difference between organic lesions and hysterical and neurasthenic conditions. This is a matter of very great importance, for there are many practitioners of surgery who, in their examinations of these patients, are unable to make these distinctions, and it is very fortunate that Dr. Eskridge has directed our attention to some of the most important points. I have been associated more or less with neurologists in making these examinations. I have also read much of what neurologists have said and written and I have gained the impression that there is a certain class of special pleaders for patients who have claims against railroad corporations. I have seen so much of this as to lose confidence in the opinions of many neurologists. Not long ago I had an opportunity of examining a patient in whom a so-called neurologist contended that extensive lesions might occur in the spinal cord without giving rise to any objective signs whatever; that the reflexes may be in a perfectly normal condition, and yet there may be extensive inflammatory foci in the spinal cord. This was new to me. The gentleman said he had made a number of post-mortem examinations, and had exhibited slides showing the condition of the spinal cord in cases where there had been **no objective symptoms whatever.**

Another point which might be taken into consideration here, especially in women, is the existence of pelvic troubles that give rise to neurasthenic symptoms which are attributed to an accident or injury when such injury occurs. Not long since I examined a patient in whom an injury, at the beginning, of a different character was alleged. The patient had sat violently down on the floor of a car, and claimed to have fractured the coccyx. For a long time the claim was based on this condition, but as no objective signs of this fracture could be elicited the claim was abandoned, and a suit subsequently instituted in which either neurasthenia or spinal cord lesions of a very general and indefinite pathologic basis were offered, and when the case came up for final examination the neurologist, to whom I have referred, stated as his belief that there were inflammatory points in the spinal cord, and when asked to produce evidence for these lesions, he was unwilling to point them out, and simply presumed on the information of other fellows who were associated in the case. He asserted that he had seen a number of patients in whom there were focal points of inflammation, in which the deep reflexes were not affected in any way, who, were incurable, and which made the case hopeless.

DR. JOHN E. OWENS, Chicago—While I have not very much to say on this paper, I should regret very much to have it pass without expressing my appreciation of its value to the Academy. I do not believe that surgeons, as a rule, are experts in neurologic fields, and when diseases of this class present themselves to us, it is very essential for us to call competent neurologists to our aid. In other words, the head of no practitioner in this country is large enough to take in all branches of the practice of medicine. The idea that it is has long ago been laid aside by the thinkers in the medical profession, and the appointment of gentlemen representing this field of work in connection with our railroads is a step in the right direction. We certainly very frequently have to avail ourselves of their services in discussing these cases. This paper culls from the monumental work of the neuropathologists and narrows the borders of the subjects which we, as practical surgeons, are the most interested in, that is, those cases of nervous aberrations that grow out of real and alleged surgical injuries. It places the matter within our grasp. When it is published in our Transactions, it will be very convenient for us to refer to it, as I shall do, in studying the differential diagnosis of the various nervous aberrations which we have to meet.

Scandinavian Congress.—The third Northern Congress of Internal Medicine will be held at Copenhagen, July 26 to 28. Serumtheraphy is the chief subject for discussion.

TREATMENT IN COMPOUND, COMPOUND COMMINUTED, AND NON-UNION OR UNUNITED FRACTURES.*

BY C. D. EVANS, M.D.

SURGEON W. P. & B. & M. R'Y CO.; SURGEON TO ST. MARY'S HOSPITAL,

COLUMBUS, NEB.

In placing before this society a simple contrivance for the treatment of compound, compound comminuted and non-union or ununited fractures I somewhat hesitate, for fear that it may be looked upon as an individual or special splint, a fancy of my own, or as so many have a "hobby." This I must leave for your consideration. This appliance I have used as much for after-treatment where operation was necessary as I have for fractures alone. It is the operation for the ununited fracture to which I wish to call especial attention. I can better describe the operation, splint and dressings by reporting the following case:

Charles L., aged 32, presented fracture of the upper part of the lower third of his right leg. He was a miner, Irish, and with good family history, no constitutional troubles, no previous sickness, excepting in childhood, and no history of venereal nor hereditary disease.

The accident occurred March 15, 1899. He fell from a railroad train, striking his leg against some object. The leg was at once put in a plaster cast from the toes to the knee, and three weeks later he was taken to the hospital. Two weeks after being in the hospital this cast was removed. The fracture was not united, and the cast was replaced by one enclosing the leg and the thigh. Four weeks later he left the hospital on crutches, with a spint on the limb, suffering pain on motion and exercise in the region of the fracture. One week later, making in all ten weeks, the cast was removed and the fracture found still ununited.

May 31 he came under my care and entered the hospital at Columbus, eleven weeks after the accident, and I found the following conditions: Leg badly swollen and painful small opening in the leg at the seat of fracture, on the anterior surface, and motion of the fragments free. By motion and rubbing of the fragments I could get very indistinct crepitus. After a thorough examination I resorted to the following operation, June 20: The foot and leg were made thoroughly aseptic. On the outer side of the leg, one-half inch from the crest of the tibia and two inches above the seat of fracture, I began the incision, extending it to the inner side and across the tibia two inches, making a short curve; then one was made down the inner side of the leg and beyond the inner margin of the tibia to a point two inches below the fracture; making a short curve as before, it then turned outward across the leg and tibia to a point corresponding to the upper incision. The flap with the fascia was dissected and turned to the outer side and entrusted to an assistant.

The fibula was found in thoroughly good condition and in my judgment not in need of operative interference. An incision was next made on the crest of the tibia down to the bone, the whole length of the opening. The periosteum was turned back and dissected from both fragments toward the fracture. (The reason I give for this dissection of the periosteum is that I secure more for the recovering of the bone than I would have done by dissecting from the seat of the fracture up and down.) The provisional callus and ligamentous growth markedly interfered with knowing just where the true

*Read before the American Academy of Railway Surgeons, Omaha, Neb., Oct. 12-13, 1899.

periosteum began, therefore I saved from one-half to three-fourths of an inch of the latter, which I think would otherwise have been lost. The bone freed of periosteum in this manner, I used a chain saw and removed the thickened growth until true bone was secured. The fracture being a little irregular, I sawed in the line of fracture, in all losing about five-eighths of an inch of bony structure, not enough but that the fragments could easily be approximated. This being accomplished, I drilled, using a small-sized drill, three holes in each

FIGURE 1.

fragment, viz: crest, outer and inner side of the tibia. These holes were directed toward each other so that they would come in exact apposition, and none were allowed to enter the medullary canal. A half-curved needle was armed with No. 3 chromicized catgut and easily passed through the openings in each fragment. The fragments held well together, the catgut securely tied, and the periosteum brought together, the wound was closed by interrupted sutures, dressed with Tursche's powder and bichlorid gauze, and bandaged just far enough to cover

FIGURE 2.

the wound. Then the most important part in the treatment of compound and compound comminuted fractures and operations for securing the bone was attempted. Photograph No. 1 shows the leg before operation; Photograph No. 2, operation; Photograph No. 3, the first part of the plaster dressing or splint.

The wound closed by first intention in the patient above, and the cast was removed July 15. A cast was put on to cover the leg from the toes to the knee, to keep the limb firm and to allow the patient to get out of bed. The last cast was removed July 29, and the limb is now in perfect repair and in continued use.

When preparing for the operation I secure what is known as "band iron." This I shape to the sound leg, in this case extending from one to two inches beyond the toes, back two or three inches above the knee. The iron is shaped to fit the leg except that at the seat of fracture I make a loop in the iron so as to raise it about two inches above the wound, admitting a thorough asepsis in after-dressing, should it be required. Having this properly shaped, the operation over and the wound band-

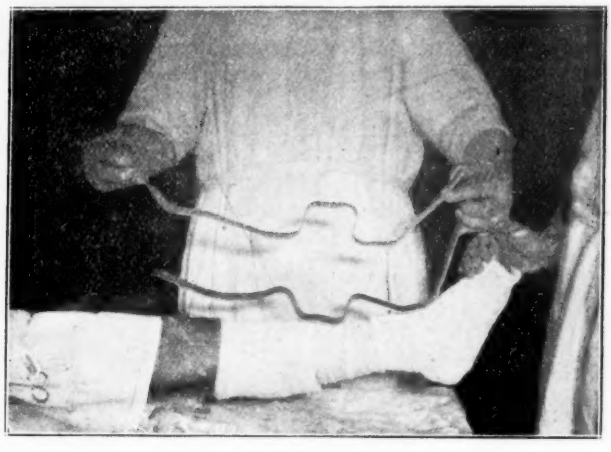

FIGURE 3.

aged, I cover the limb as far as necessary with raw cotton, in this case from the toes to the knee. I then enclose the foot and leg as far up as the lower end of the bandages, and also do this from the upper end of the wound as far up as the knee. I then tear the cotton around the leg in the center between the plaster-of-Paris dressing, and over the wound turn it back between the plaster, making a sort of cuff. I do this at the toes and the knee also. The irons are then placed on the anterior and posterior surface of the leg, held securely by

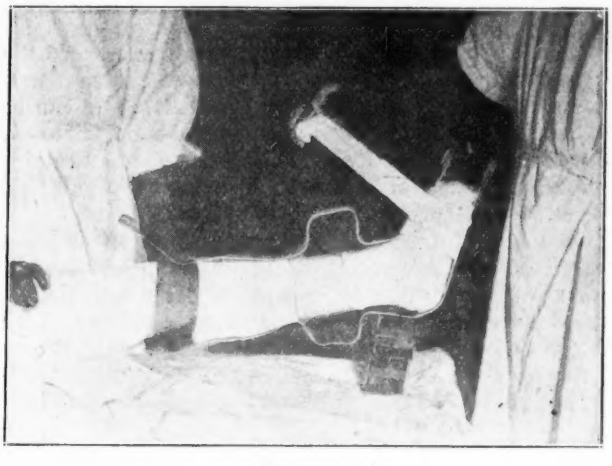

FIGURE 4.

two assistants, and firm plaster-of-Paris bandages are applied as before and of sufficient thickness to secure the particular fracture; turning back the cotton in this manner leaves no rough edges. When this is dry I supply the open space between the plaster and over the wound with more cotton and a well-tightened roller bandage, thus leaving the limb with equal pressure from the toes to the knee.

Photograph No. 4 gives an idea of applying the irons. Photograph No. 5 shows the splint complete. The iron

on the anterior surface is so bent upon itself that it makes a hook for the attachment of a rope to suspend the limb. This is done by securing two upright pieces about five feet long—one by three inches—to the foot and head of the bed, and with a piece of one-inch rope a little longer than the bed placed in these upright pieces, a pulley on the gas pipe, the rope in the pulley hook, the patient has the freedom of the bed. Photograph No. 6 shows the patient in bed and the dressing removed just before taking off the splint.

There are three principal features to which I wish to call especial attention: 1. The mode of securing apposition of the fragments of bone. 2. The simplicity of the appliance to keep the fragments in apposition. 3. The advantage of dressing the wound thoroughly aseptically.

The only material I used to secure bony apposition was catgut, No. 3. The secret in the successful treatment of this character of injury is to absolutely immobilize the fragments after securing apposition, and not forcing the bony structure to be subjected to foreign bodies more than is absolutely necessary to reach the object to be attained, that of immobilization.

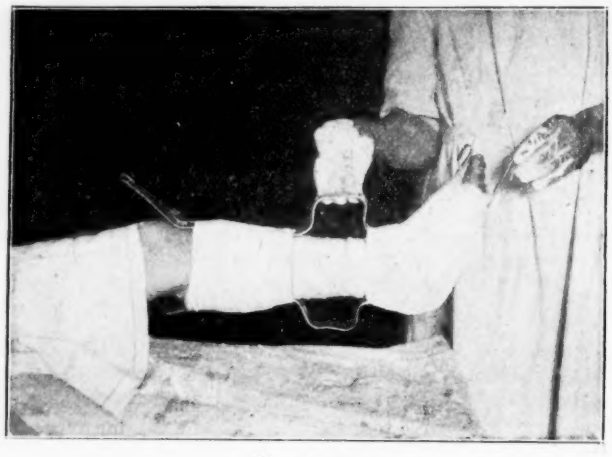

FIGURE 5.

The simplicity of the splint or appliance to keep the fragments in their position is that the iron can be secured at any hardware store or tinshop, and can be had at all times. The iron is easily bent and moulded to suit the limb and fractures, a little mechanical ingenuity and practical knowledge of anatomy are all that is necessary to make it a perfect success.

The mode of dressing the wounds can be made absolutely aseptic. Two pieces of rubber dam, 8x12 inches, with a V-shaped piece cut out of the long side, the V-shaped piece being a little less than the diameter of the limb, and sterilized at each dressing, should be drawn tightly around the limb at the end of the plaster dressing, and under the iron and securely fastened by safety-pins; the rubber turned back, forming a cuff over the plaster cast, admits of thorough washing and dressing.

Just a word more regarding compound and ununited fractures: There are many authors and individual writers who say that injuries of this character should never be enclosed in plaster-of-Paris dressing. While this is true in part, they fail to tell us by what absolute measures we can secure the limb by external appliances. The rule I follow in compound and compound comminuted fractures is first to reduce to a simple fracture, and under the greatest aseptic measures. I have used this appliance for compound, compound comminuted fractures, and splint or dressing for the upper as well as for the lower limbs, for some years, and have never had a failure, although, with this appliance, I provide for failure, in this: that should any derangement of the soft tissues occur, or the fracture prove unsatisfactory, the wound can be dressed and redressed with the fragments in perfect apposition.

It would seem to me that the most important part in the treatment of this character of injuries and the after-treatment of operative measures for this class of operations is to have complete control of the limb by external appliances, and in no way jeopardize the limb or the patient by using foreign substances in the bone. Therefore, I want to say more particularly, to bring out the sentiment of this society, in full discussion, that the day for using wire sutures, ivory pegs, iron nails, clamp screws, or any other foreign substance in bony structures that will not readily absorb, more particularly where the soft parts are kept open, is fast drawing to a close.

I make reference to fourteen other patients, the ages varying from 14 to 60 years.

FIGURE 6.

DISCUSSION.

DR. THOMAS B. LACEY, Council Bluffs, Iowa—In regard to the strap or band around the splint as suggested in the paper, I am inclined to think it is simply a modification of the old method used in applying interrupted plaster-of-Paris dressing for fractures, which in some text-books is illustrated in much the same way, with loop made, if necessary two loops, and a little turn by which the limb can be suspended from pulleys in the ceiling or by anything crossed over the bed that gives a chance to attach to it.

As to the use of catgut to secure apposition in the case mentioned by him, it occurs to me that the catgut does not amount to very much as the essayist applies it, except in one particular, namely, that it holds the ends of the fractured fragments in apposition until he can apply his dressing, then he has no further use for the catgut. It may take him three-quarters of an hour to apply the dressing and have hardening take place, so that the external apparatus will retain the fractured fragments in their position. It occurs to me that this is all catgut is expected to do in this case, and that it simply holds the fractured fragments in close apposition until such time as the fragment has been hardened, and at the end of an hour or more he has no further use for the catgut, and it serves no further purpose. Whether we would be satisfied with the use of catgut or any other suture material, and have its purpose ended in one hour, and from that time on have it serve no further purpose, there is room for doubt. I would like to use some article in its place which will at least give us forty days' partial support, in addition to the dressing that he suggests in his paper.

DR. W. W. GRANT—What do you secure it with?

DR. LACEY—The essayist says that he does not use wire, I

lieve, but wire is used extensively and frequently in these ases. The use of wire has been suggested by Dr. Lemen, and hile I do not wish to anticipate him in the discussion of this aper, he suggests the use of silkworm gut, which will persist d give support. I think the ivory pegs are good; they will in measure be absorbed, but we must be absolutely sure that they e thoroughly aseptic before being placed in position. Whatver we use should be introduced in such a way that the medulry canal is entirely avoided. In some of our text-books referace is made to the use of silver or plated wire. I think copper ire plated with silver has a greater tensile strength than lver wire itself, and that it will, perhaps, serve a better purose. However, in some of our text-books you will see by the escription and by the plates used, that the wire is at times assed directly through the full diameter of the bone, it, of ourse, passing through the medullary canal. This is objecionable and is the source of considerable trouble, as well as ailure, in many cases in which failures are reported. It is asy to avoid the medullary canal, either by boring from the nd of the fragment upward and to the surface, or by drilling hrough, just taking the compact tissue, and going sufficiently igh to avoid passing through the medullary canal.

As to the use of wire, silver wire alone is a rather difficult hing unless you use large-sized wire, or unless you take two r three strands of moderate size and twist them together, making one cable, because silver wire, although you place it in osition and get close coaptation for the time being, breaks too asily. If it should break in manipulating it, it would do bsolutely no good and had better be out. Plated copper wire as, therefore, greater tensile strength and will not break so asily.

DR. LEMEN, Denver, Colo.—In regard to the treatment of ractures, there are three cardinal principles which should invariably be observed: 1, the diagnosis; 2, apposition, placing he fragments in accurate apposition; 3, retaining the fragents in position. In order to hold a fracture in apposition, ou must have what we call a fixed dressing. A dressing that absolutely fixed, which retains the fragments in position, is hat we desire. I must criticise the Doctor's application of the laster a little. In a limb that is entirely encompassed by a laster-of-Paris dressing, it may be applied ever so snugly and hick at the time, yet in forty-eight hours after, owing to rawing out of the dressing and of pressure on the muscular issue, more or less shrinking of the limb is produced. Then ou have what is supposed to be a fixed appliance, but one that s badly in need of fixation; in other words, you have motion. n such cases catgut does not retain the fragments in position ufficiently long. The dressings, strings, or wire must be used onger than one hour. You will have good results where there s more or less motion. The more motion you have, the greater will be the amount of callus thrown out. You will have union. I have used ivory pegs; I have likewise used iron nails for unitng the fragments, but for the last six years I have employed ilkworm gut, because it is stronger than silver wire. When you use the latter and twist it and tie it tight enough to make perfect apposition, you have a large knot which is a menace to the soft parts. By using silkworm gut and making three loops, bringing it taut, it holds firmly. It makes a buried suture, and Nature takes care of it. I have never had an opportunity of dissecting these wires afterward, to see the results, but I know that my results have been good. (Here Dr. Lemen demonstrated his method of treating a fracture in the middle or upper third of the leg.)

DR. W. RUML, Cedar Rapids, Iowa—In treating a fracture below the knee it is very important to fix the knee-joint as well as the ankle-joint. I do not hesitate to apply a plaster-of-Paris dressing at once. In a case of compound fracture I thoroughly cleanse the wound, apply a large gauze dressing and absorbent cotton. In applying the plaster I use a roller gauze plaster-of-Paris bandage, and run it up well above the knee. I believe it is absolutely impossible to retain the fractured fragments in apposition without fixing both joints; in other words, completely immobilizing the fracture. The patient is kept in bed with the leg slightly raised, knee slightly bent; thus lessening tension on the heel tendons. If the cast does not include the knee-joint there is the possibility of a man moving the leg in the cast. If the knee-joint is fixed, however, this is overcome. I use iron wire in wiring bones, and what is called stove-pipe wire. I find it efficient. I use sutures ordinarily in the manner described by Dr. Lacey, but the most important part is the after-dressing, which should immobilize the fractured fragments.

DR. E. W. LEE, Omaha, Neb.—I wish to emphasize what Dr. Lemen has said in regard to the plaster-of-Paris bandage; instead of having it entirely encircle the limb, I would have it in the form of a side splint, so that it can be readjusted as the atrophy of the muscle takes place, from pressure and swelling becoming reduced. The plaster-of-Paris bandage can then be adjusted and brought into closer apposition to the limb, and in consequence the limb can be immobilized.

With reference to the use of silver wire, my experience has taught me that it gives very little trouble, and that there is very little danger, if any, of going through the medullary canal. A case that impressed this very firmly on my mind was one of compound comminuted fracture of the humerus, produced by a pistol ball, and in which non-union was the result, owing, in the first place, to a portion of the ball remaining between the fractured ends, so that when the case came under my observation there was a discharging sinus and ununited fracture. I opened the wound, and removed the portion of the ball that remained—about half of it; the fractured ends were soft and granular; I brought each fragment from outside the skin, cut them off slantingly, brought them together, and put four holes through each fragment clear through the bone, inserted a large silver wire, about the size of the largest string of a guitar, and twisted it, giving each one three or four twists, left about one-quarter of an inch twist, and brought it next to the bone where I peeled the periosteum back, and the arm then was in this position (illustrating). The patient was still under an anesthetic; I took the arm, held it in this manner (illustrating), and the silver wire held the bone, so that the arm did not sustain its own weight. I then used ordinary antiseptic dressings, and within forty days the man was able to use his arm, and has had a strong one ever since. The silver wire became encysted and has caused no irritation whatever. I do not use the solid silver wire, but copper wire silver plated, and in that case it worked eminently satisfactorily; I see no reason why we should not continue to use it.

So far as catgut is concerned, unless we have absolute confidence in it, it is liable to prove a source of great danger.

DR. JAMES A. QUINN, St. Paul, Minn.—I wish to say that in the past six months I have wired more than a dozen bones in cases of delayed union, or what I would call non-union. I have used copper wire plated with silver, which I prefer on account of its tensile strength. While I have gone through the medullary canal, I have not seen any untoward symptoms from so doing, and the testimony of my patients is satisfactory. If catgut can be so prepared that it will last and not be absorbed inside of forty days, preferably sixty days, I see no objections to it. On the contrary, I would welcome it. I have used silkworm gut in these cases, but my preference is copper wire silver plated. Its tensile strength is very much greater than that of silver itself. It has happened to me more than once, when everything was approximated, to have the limb sag and the silver wire break. I am fond of the use of plaster-of-Paris, and I employ it daily and invariably.

DR. C. D. EVANS, closing the discussion—In regard to the medullary canal, I based my statements on what I have seen, and I think that the surgeon who opens the medullary canal to put in a wire suture of any kind is not doing up-to-date surgery. There is no long bone in the 12-year-old subject but can be wired with catgut, or, as Dr. Lemen prefers, with silkworm gut, and when we have a fractured bone we have enough injury to the tissues without the surgeon wilfully making more. The object of the surgeon is to save further injury instead of making it. The fixation of the limb in this splint that I suggest is practically a partial covering of the limb in plaster, and we have all seen, after the application of plaster-of-Paris dressings, as well as of others, the awful mess that is made by soiling these dressings, either by the discharge from the leg or by washing the wound. This splint I have shown you absolutely provides for cleanly dressing; you do not soil the splint, while the wound is absolutely aseptic all the time. In the photograph that is presented you will notice the limb suspended. This suspension can be applied to the arm as well as

to the leg. Even if the splint becomes loose, the leg is in a position where the fragments of bone can not become misplaced. The application of plaster-of-Paris after the manner suggested by Dr. Lemen and Dr. Lee is not scientific, because you can not dress the limb, if necessary. In dressing, you make a smear, you fill it with all sorts of things that may tend to injure the bone or soft parts, and it is absolutely impossible to keep it clean.

DR. LEMEN—I put on a dressing and usually a rubber dam over the opening the same as you do.

DR. EVANS—You did not explain that in your previous remarks. When you apply plaster-of-Paris on a leg from the toes to the knee and suspend the limb by pulley, you have fixation at the knee-joint so long as the limb is suspended and the patient is in bed. This splint provides for nutrition while loosening of the limb or atrophy is taking place. I always like to see a little loosening in the upper part of the splint or around the limb from the atrophy that is taking place, because it admits air, and that air is nourishment to the limb.

TREATMENT OF MINOR TRAUMATISMS.*

BY R. HARVEY REED, M.D.

Emeritus Professor of the Principles and Practice of Surgery, and Clinical Surgery, Ohio Medical University; Medical Director, Wyoming General Hospital; Surgeon-General Wyoming; Surgeon Union Pacific Coal Co.; Division Surgeon Union Pacific Railroad.

ROCK SPRINGS, WYO.

The frequency of minor injuries warrants more attention to their treatment than, as a rule, is given. The danger of severe infection from the most trivial wounds warrants our closest attention to this class of injuries.

During the last two years, my records show that I have treated on an average about one thousand minor injuries each year. Among these I have seen some of the most grave cases of infection arise from trivial accidents, so insignificant that those who were afflicted did not think it worth while to go to the surgeon's office and have them cared for, until they found that instead of repairing, they were getting worse, and oftentimes when they would apply for treatment they had already suffered from chill, and septic infection had set in.

A patient who is now convalescing in the Wyoming General Hospital will illustrate this subject. A young man, in the prime of life, ran a small splinter into the thumb of the left hand. He removed the splinter and paid no attention to it until about five days later, when he came in, suffering from rigors, headache and general lassitude, with a furred tongue; on examining the thumb, I found it swollen and inflamed, with a red streak following the line of the lymphatics of the arm to the shoulder, but especially was it noticeable in the forearm. He was sent to the hospital, the thumb was freely lanced, but only a small quantity of pus was discovered. This was evacuated, the wound washed with bichlorid solution and the entire hand, forearm and arm packed in sterilized gauze saturated with bichlorid evaporating solution and covered with christie to prevent evaporation.

Notwithstanding the vigorous treatment which was applied, the arm became intensely swollen, the inflammation extending to the fascia between the flexor muscles of the forearm, causing contraction of the fingers and thumb, which for a time were so painful that it was impossible to straighten them without excruciating pain. As soon, however, as the inflammation had subsided sufficiently, massage was instituted and the fingers and thumb were extended every day, until at the present writing the patient is able to move them and by some effort, and with more or less pain, is enabled to have them nearly straightened. Yet, there is still more or less thickening of the flexor muscles, which in time we are in hopes will subside and the young man eventually get the use of his hand.

This is only one of numerous instances of a similar character where a slight injury has produced the gravest effects. Many of these injuries to the fingers are followed by suppuration, the sepsis not unfrequently of so severe a character as to extend to the periosteum and even be followed by necrosis of the bone, necessitating amputation, usually the result of carelessness on the part of the patient, who became infected before applying for treatment. I regret to say that we have trivial injuries where patients do apply to the physician and surgeon for treatment, and through carelessness and neglect of strict antisepsis the surgeon allows the wound to become infected and the patient is obliged to suffer the consequences. I recall a case of this kind in which a young man, who was scratched with a piece of glass, became infected, and his first medical attendant added fuel to the fire by putting on a filthy flaxseed poultice. The infection extended along the lymphatics of the right arm until it reached not only the axillary but also the subpectoral glands, all of which became not only inflamed but broken down, and we were obliged to remove all the superficial and deep glands, and in operating, we found that the pus had burrowed beneath the pectoralis major muscle to its origin along the anterior aspect of the chest. This young man came near losing his life from a mere scratch, not larger than that made by the point of a pin. It cost him weeks of suffering, besides the general depression which an injury of this kind brings about to the economy. Many physicians are not as fully equipped for caring for this class of wounds as they should be. We also realize that the physiologic resistance in many persons is sufficient to protect them against infection, although it may be present in wounds of a minor character. Yet no one knows the moment this physiologic resistance may fall below par, and infection, such as I have described, follow.

The object of this paper is to impress, more especially on those who have to handle this class of injuries, the importance of treating even the smallest minor injury with the same precaution as though it were a major one. It is true that many of these patients come to the physician or surgeon, no matter how soon they are seen after the accident, thoroughly infected. The nature of their employment is such that it can not be avoided, yet I am convinced, by a reasonably large experience, that there are simple, inexpensive methods by which they can be treated successfully at the physician's office without having the terrible results of septic infection follow such traumatisms.

It has been my aim during the last few years to study how best to treat these injuries in such a manner as to obtain the most satisfactory results with the least loss of time to the patient and surgeon, and the least amount of expense. These are all factors which interest everyone concerned in the treatment of this class of injuries.

I trust I shall not be considered egotistic in presenting my method of treating this class of wounds, in the hope that it may be of some benefit and at the same time call forth discussion which will bring to light the experience of others. The method which I have found to be most satisfactory is to wash the injured parts thoroughly with tincture of green soap and a scrub-brush, after which the parts are bathed with a solution which has been abstractly named "bichlorid evaporating solution," and which consists of 80 parts of a 3 per cent. boric acid solution made with distilled water, 10 parts of alcohol, and 10

*Read before the American Academy of Railway Surgeons, Omaha, Neb., Oct. 12-13, 1899.

parts of glycerin, which constitutes the evaporating solution proper. Eight drops of a saturated solution of bichlorid of mercury is added to each pint of this solution. It may be interesting to note that the saturated solution of bichlorid is made by using 2 ounces of hydg. bichlor. and 2 ounces of alcohol, to which is added 6 ounces of glycerin. Made in this proportion the bichlorid is practically all dissolved, and 8 drops of this solution to a pint of water equals 1/3500. Thus it will be seen, by adding this amount to the so-called evaporating solution, that it is converted into a bichlorid evaporating solution which has a standard strength of 1/3500. After this, sterilized gauze is saturated in this solution and, after having applied a sufficient quantity of it—say four or five layers of ordinary gauze—the wound is bandaged in such a way as to expose a portion of the gauze. This solution is prescribed and the patient told to drop a small quantity of it on the gauze which is thus exposed, so that it will keep the entire gauze-dressing moistened; the patient is advised to report every other day. At each subsequent dressing this is removed, the wound cleansed with nothing but bichlorid evaporating solution, and another dressing of the same kind applied.

As a rule, ordinary injuries of the fingers repair in a very short time, and it is the exception to the rule where pus or even inflammation follows these injuries when dressed after this method. If the bichlorid is found to produce a toxic effect, either being absorbed or setting up dermatitis, it is frequently changed for a 10 per cent. solution of creolin in sterilized water, which is a very satisfactory dressing with the exception of the ungrateful odor which accompanies it. Where the skin is dry and hard, and the bichlorid evaporating solution or creolin does not give satisfactory results, glycolin mixture is used. This consists of carbolic acid and oil of gaultheria, each 16 drops; menthol crystals, 16 grains; glycolin, 4 ounces. This should make a clear oleaginous solution, and in cases where there is no pus and granulation is taking place, but the integument about the wound is dry and hard, it makes a most grateful and satisfactory dressing.

This is especially indicated where the nails have been torn off and where the wound has been treated with bichlorid evaporating solution until the new nail has commenced to repair, and where the evaporating solution is not indicated, on account of its irritating properties. In such cases the glycolin mixture is frequently used with very satisfactory results. I recall a series of injuries where I had under treatment at one time, twelve patients with the finger nails torn off, each one being treated by this method without a drop of pus in any case, and all treated in my office in the manner I have just described. In looking up my records, I find that the average length of time in which these parties were disabled varied from eighteen to twenty-five days. In this connection I might say that in each and every instance these were miners, and in following their occupation they were obliged to use the pick and shovel, and hence could not return to work until their wounds were fully repaired.

In the dressing of injuries of this class, and especially for those of us who live on the frontier or in the heart of the Rocky Mountains, it is not always convenient to drop into a first-class drug store and obtain ready-made dressings, and I have often thought it was a godsend that we could not, for it compels us to devise original methods and means for doing our own sterlizing, and preparing our own dressings which, after all, are the safest and best as well as the least expensive. Gauze is purchased by the quantity, of such grade and quality as desired. This is sterilized under steam pressure, which can easily be obtained by any modern portable sterilizer. It is then packed in self-sealing fruit-jars. A large quantity of this can be prepared at one time and, after being sealed with cotton, it can be doubly sealed by "self-sealing tops" and is ready for use at all times. These jars can be packed into portable surgical cases and carried to any point desired. Absorbent cotton treated in a similar manner is always ready for use for dressings. The solutions above can easily be made in an office or an ordinary drug store, and kept ready for use at any time. These can, likewise, be packed into a portable surgical satchel, and I consider them much preferable to preparations which are made in the tablet form, as they are almost instantly absorbed by water, while tablets oftentimes require some considerable time to dissolve, besides leaving a sediment, and we never know whether their strength is standard or not.

It will be observed that I do not pretend to treat accidental wounds aseptically, as experience has convinced me that this plan of treatment is not applicable to dressing wounds such as usually occur in emergencies, and in my judgment is only advisable in such cases as can be thoroughly prepared before an operation is had.

Thus far I have not considered wounds that can be sutured and closed up, but have devoted my time entirely to wounds which were of a contused and lacerated character, which can not be sutured. I will now consider those minor injuries which can be sutured and which, under favorable circumstances, we expect to repair by first intention. To insure healing by first intention, surgical cleanliness and perfect coaptation are essential. In emergency surgery cleanliness is not always so easily obtained, on account of the condition and circumstances surrounding the patient when he is injured. Coal-miners, for example, are covered with grease, coal dust and other filth, similar to railroad employees who, when injured, are often dragged along the ground in such a manner as to fill the wound with cinders and dirt of all descriptions. In bad wrecks I have seen the entire clothing and every wound on the person literally filled with pulverized wood which had been crushed in the terrible force accompanying the accident. It is no small task to cleanse the wound of these foreign substances, but if we do not take care to remove them at our first permanent dressing, we will meet with more or less trouble and additional work later on, saying nothing of the increased loss of time on the part of the injured patient. To remove this dirt it is often necessary to place the patient under an anesthetic, and to use an ordinary scrub-brush to cleanse the parts, such as is used for the hands, in addition to using the fingers, which are the best probes we have at our command for detecting and removing foreign substances from a lacerated or incised wound. After having thoroughly scrubbed the parts with tincture of green soap, they are then flushed with a bichlorid solution of 1/3000. In many of these wounds, after surgical cleanliness has been secured, their margins are found to be ragged—the fibers of the connective tissue having been brought to the surface—which as a rule are devitalized and, if allowed to remain, will only become necrotic tissue and form a nidus for pus infection. This should be removed at the risk of producing slight hemorrhage, which can easily be stopped by the application of a gauze sponge dipped in hot water. The nearer we come to converting a lacerated into an incised wound, the better the condition for rapid repair.

Having thoroughly cleansed not only the wound but the parts adjacent to it, and having shaved the hair off, if

such be present, the edges of the wound are then carefully adjusted and either sutured with sterilized pyoktanin catgut or sterilized silk. The latter is preferable, as it can easily be kept in alcohol, or if not, immersed in absolute alcohol before use, and we have found that it is an exception if a stitch abscess follows the suturing of lacerated or contused wounds when they are dressed after this method. Having carefully approximated the edges of the wound, it is covered with collodion and the patient told to report in two or three days. If the wound is looking well at the first visit, and there is no indication of inflammation or suppuration, the patient is told to return at the end of the week, when, as a rule, the wound is found completely repaired, the stitches are removed and the patient is allowed to return to his avocation.

This dressing is particularly applicable to the head and face, where a bandage is kept on with difficulty, and if it *can* be kept in place it becomes exceedingly dirty in a short time and is often a source of infection rather than a protection. If the wound is thoroughly cleansed and

FIG. 1.—Appearance at first dressing.

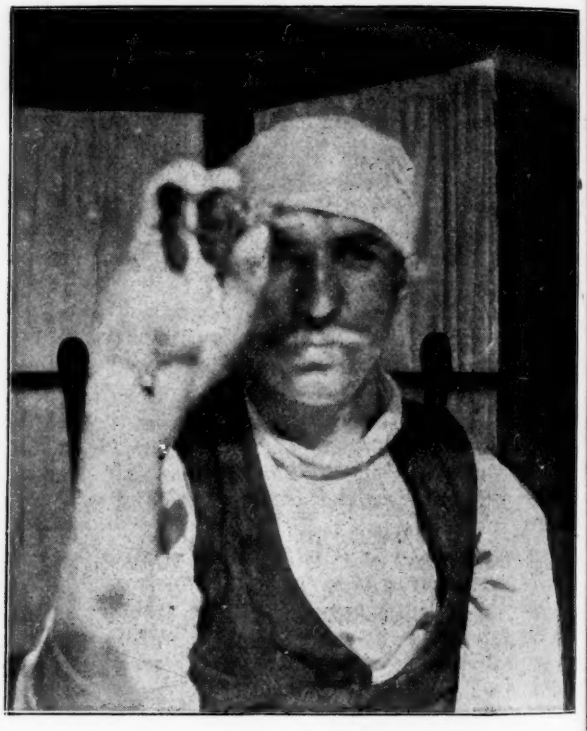

FIG. 2.—Appearance just before skin grafting.

all devitalized tissue removed and good coaptation secured repair by first intention should be the reward of our care and trouble. But if the wound is allowed to become infected before it is sealed with collodion, then suppuration can be expected, and when the collodion is removed, the wound will be found gaping as a result. It is sometimes advised to use a thin film of cotton, which is saturated with collodion and placed over the wound. But as a rule I prefer to omit this, as it is apt to become soiled, while a wound sealed with the collodion only can be readily washed and the dirt removed without injury to the dressing.

To illustrate the practical results of the antiseptic methods above described for the care of minor injuries, I wish to call attention to the accompanying photographs, showing the condition of a patient's hand, which was injured by his falling off a train. The ring and little fingers, including their metacarpal bones, being crushed by a car wheel, it was necessary to remove them, but owing to the fact that nearly all of the dorsal and palmar surface of the hand was denuded of all integument, we were at a loss to get sufficient flap that was not devitalized, to cover the exposed parts. In cases of this kind I have made it a rule to use all the integument possible, even if I were aware at the time that it was devitalized. It makes the best covering that can be had for a denuded surface composed of fascia and connective tissue. It is necessary, however, to see that the devitalized integument is thoroughly cleansed, in order to prevent the vitalized portions from becoming infected. In other words, it is really a sort of skin grafting, and in some instances integument is found which seems to be devitalized, but it sometimes will become vitalized, aiding very much in the repair of the parts. Where it does not retain its vitality it is easily detected and removed, when, as a rule, we find the surface in a healthy condition with normal granulations which, later on, can be skin-grafted with entire success.

In the case referred to by the photographs, this method was adopted, not more than one-third of the integument that was used to cover the denuded surface retaining its vitality, and the balance had to be removed, leaving a large granular surface extending over the entire dorsal and palmar surface and a portion of the fingers. Notwithstanding that the hand was as dirty as grease, coal dust and cinders could possibly make it, repair took place without a particle of suppuration and, in less than three weeks from the time the injury occurred, the parts had granulated sufficiently to warrant us to make a skin graft. This was done by removing a piece of skin from the arm, six inches in length and one inch in width, and which involved the entire integument down to the subcutaneous fat. As much of the latter as adhered to the graft was carefully removed by a pair of scissors, curved on the flat, when the graft was placed as near the granulating surface as possible, and one end sutured to the ulnar side of the dorsal surface and the other to the ulnar side of the palmar surface. The graft thus passed over the back of the hand, in front of the thumb, below the forefinger and over the palm of the hand. Two

sutures were placed in each end of this graft, and one on each side near the center, to keep it spread over the granulating surface as near as possible. Before placing the graft in position, it was carefully washed with a normal salt solution at the temperature of the body, and after being placed in position, dressings dipped in this solution were used next to the granulating surface and the graft and the entire hand carefully dressed with a thick pad of sterilized gauze and cotton. This was not disturbed for three days, when the dressings were removed, and it was found that the entire graft had become adherent and that the hand was in a perfectly healthy condition. This was dressed every day or every other day, and in from six to seven weeks after the injury repair had taken place completely, as is shown by the last photograph. This patient has complete use of the thumb, forefinger and second finger, and will soon be able to resume his work in the mine.

In regard to skin grafting, experience has taught me to take the entire integument, as in this case, in preference to scraping off the epithelium or even making a Thiersch graft, which in reality splits the skin and only takes a portion of it instead of the entire thickness. If the parts are healthy and the graft is carefully removed and sutured in place, there is no more trouble in having a large portion of the skin taken off in this way, adhere, than it is a small portion. I recall a case of this kind in which the entire back portion of the leg was denuded of skin by being burned. I removed one graft from the arm, that was seven inches in length and from an inch to an inch and a half in width, and sutured it on just below the buttocks. Another, six inches in length, was placed three inches lower down, and a third one, five inches in length—all the same width—was sutured three inches below that, all of which adhered without a particle of trouble, and in a short time the entire back portion of the leg was covered with integument and the patient was discharged, recovered.

FIG. 3.—Appearance when discharged.

The importance of using the entire thickness of the integument in making skin grafts is, I think, manifest. The capillaries are better preserved, and, with so much of the fascia as may adhere, and which is known to repair more readily than any other part of the economy, unite with the granulating surface more readily and with less trouble than where the skin is split in two and simply laid on the granulating surface and held there by pressure. When the entire integument is used, it is easily sutured and held in place, and the necessity for pressure is much less and the less pressure used in skin grafting the better, for pressure interferes with circulation and interrupted circulation interferes with union, which is avoided by the use of sutures.

In this brief consideration of minor injuries, we have endeavored to give, in a concise and comprehensive manner, the practical method adopted for years past with a view of getting the most rapid repair with the least possible infection at a minimum expense, and in our endeavors to accomplish this end it seems to the writer that the successful treatment of this class of traumatisms may be summed up as follows: 1. Strict observance of surgical cleanliness. 2. Preservation of normal blood-supply. 3. Perfect coaptation when possible. 4. Simplicity and efficiency of dressings. 5. The use of chemicals which will destroy infective germs but at the same time will not irritate or disturb cell reproduction.

DISCUSSION.

DR. H. REINEKING, Sheboygan, Wis.—Dr. Reed speaks of implanting the skin flaps on the granulations. This is the first time I have heard that advocated. I have had some personal experience with the implantation of skin flaps, but I have thought it necessary to carefully remove the granulations. Of course, that is not done when we use the Thiersch grafts. It seems to me as though it is hardly physiologic, if I may so express it, to put the entire thickness of the skin on a granulating surface. Our teaching has been to remove the grafts, and I would like to hear from the Fellows as to whether they have had any experience in placing skin flaps on a granulating surface, and, if so, what success they have had in so doing. If it can be successfully done, I have no doubt it would simplify matters. By scraping away the granulations we produce hemorrhage, and the operation is prolonged beyond what it would be if the granulations were left. I should hardly think a skin flap, put on a granulating surface, would get sufficient nutrition.

DR. E. W. LEE, Omaha, Neb.—It is necessary for us, in these operations, to consider the condition of the granulating surface. If the granulations had become somewhat exuberant and were very prolific, when the skin flap was put on, there would undoubtedly be failure. If I remember rightly, Dr. Reed says: "As soon as granulations permit." I believe he means by that, as soon as healthy granulation is established, and not to wait until the granulations become exuberant or until they manifest any tendency to suppuration. I have never used skin flaps over a granulating surface; I have used the Thiersch flaps, and small squares of the integument over granulations, which united very readily without any trouble.

DR. A. I. BOUFFLEUR, Chicago—The subject of Dr. Reed's paper is very instructive because there is no class of injuries more interesting to railway surgeons. I am very much surprised however, at the large statistics the Doctor gives, as to the number of patients he has treated. One's experience, based on such a large number of cases, is of great value. I was interested in the composition of the bichlorid evaporating lotion, because my own experience with bichlorid under confinement is that it is a decided irritant. Perhaps I am a little sensitive in this regard because bichlorid and I are not friendly, as far as any skin is concerned, and I certainly would not want it placed on my hand in any strength, underneath any protective material, because I know it would give me a severe dermatitis. Bichlorid is a valuable remedy; it is a positive antiseptic, and it should be used as such and not as a constant dressing. That is the general consensus of opinion to-day, because plain sterile gauze at the present time has entirely superseded the use of bichlorid gauze, bichlorid gauze being formerly used with that idea in view.

Dr. Reed's remarks as to the disinfection and maintenance of

asepticity are good, and it does not matter very much what method one uses to continue that condition of asepticity. Some of us are good disinfectors mechanically; others require strong germicidal agents to enable them to disinfect surfaces thoroughly, while still others disinfect with a combination of the mechanical and weak antiseptic solutions, like alcohol, lysol, and agents of that sort.

With reference to skin grafting, it is a well-recognized method of hastening wound covering. I have been in the habit of using the Thiersch grafts very largely, and have at times been disappointed in the conduct of wounds so closed. I had always supposed that if we removed the granulations and the layer of connective tissue immediately beneath them, we would not have contraction of surface. I have had experience in closing large defects in the side of the neck in which a grafted surface, two inches wide, in the course of three or four weeks, would be shrivelled up to half an inch in width. One needs to be very careful in using grafts over bony surfaces where there is much pressure, or where there is likely to be friction. Therefore, the suggestion of Dr. Reed in urging the full thickness of the skin is timely, about the palmar surfaces of the hand in particular. I have used skin flaps on granulations when the granulations were to my mind positively aseptic. I have frequently clipped off granulations with scissors, that is, part of them, not removing all of them, however, and have had the grafts adhere. This is a matter entirely dependent on the asepticity of the surface. If the surface is strictly aseptic, the granulations need not be removed. If it is not aseptic, it is absolutely essential that the granulating surface be removed down to aseptic tissue.

DR. WILLIAM U. COLE, Columbus, Ohio—With reference to skin grafting, I very well remember seeing Dr. Reed take long strips of skin and get adhesions. I have had the same results as have been referred to in attempting to place thin strips of epidermis on granulation tissue. It is not so much the thickness of the skin as it is that the condition of the wound is such that it will readily take the grafts and the wound must be thoroughly aseptic. It is not very easy to put a skin graft on a septic surface and have it take or adhere, particularly if there is a tubercular condition, or a condition of lowered vitality. A Thiersch graft, applied to a wound, if the parts are aseptic, will unite.

With regard to the treatment of minor injuries in which sepsis predominates, the parts may be kept irrigated in this way: As soon as a man sustains an injury, he should immediately stop work, and a surgeon be sent for, no matter whether it be a minor or a major injury. I am connected with roads where that is the rule, and there is very little pus encountered under these circumstances. The grease that gets into the wound is generally crude petroleum, and I am satisfied of its antiseptic value. However, I may be mistaken in this. I do not remove the crude petroleum from the wound, because in ordinary lacerated wounds I am convinced of its antiseptic value, and I do not recall a case in which pus followed where the crude petroleum covered the skin.

In regard to the suppurative cases referred to, the best way to get rid of the pus is by submersion and the application of iodid of mercury. I would keep the hand or foot constantly submerged for four or five days or more, if necessary. I recently treated a case in which I deemed it necessary to keep the man's foot submerged for sixteen days, believing that he would have lost the foot if this was not done. A bath-tub can be used and a solution made to suit one's inclinations. My favorite solution is boric acid with a large amount of water. In the case of a bruised foot or hand, it is my practice to take the ordinary foot bath-tub, if there is nothing better at hand, fill it with water, and keep the water at a temperature of 100 F. I do not find it necessary to discontinue this except as the patient begins to convalesce, or the wound shows signs of recovery. This method of submersion is worthy of trial, because it attains several objects, and among them the power of absorbing bacteria and ptomains. It has the power of supplying the necessary heat to the injured part; it has the power of absorbing the material which is natural food for the system. I have seen no bad results following submersion of limbs for ten days or two weeks. I am satisfied that I have saved limbs by adopting this method that otherwise would have been lost.

A CONTRIBUTION TO THE SURGERY OF THE COMMON BILE-DUCT: REPORT OF A CASE OF CHOLEDOCHENTEROSTOMY.*

BY JOHN E. SUMMERS, JR., M.D.
OMAHA, NEB.

It would be interesting to discuss the progress of the growth of surgery of the common bile-duct following so closely upon that of the more perfect technique of operative work on the gall-bladder and cystic duct. However, the time at my disposal would scarcely admit of more than a mere outline, the details of which can be found in several well-known monographs. I would particularly refer to the writings of Mayo Robson, whose operative experience in the surgery of the gall-bladder and bile-duct is probably as great as that of any other surgeon in the world. With this brief explanatory excuse for not indulging in ancient or modern history, I ask your attention to the subject title of my paper.

A well-developed young woman 18 years of age, was referred to me for operation for "gall-stones." The history given was that for the past five years she had been a sufferer from intermittent attacks of hepatic colic. The attacks for the first four years were usually mild, but sometimes quite severe, and were accompanied or followed by some jaundice. The icterus usually cleared up entirely when the intervals between the attacks were of several months' duration. The patient came under my notice the latter part of September, 1899, when she stated that the intermittent character of the pain, pronounced during the first four years of her suffering, had changed much during the past year. She was ever conscious of pain, and would have severe exacerbations with intervals varying from a few days to as many weeks. Jaundice was very pronounced. She had had the regular medicinal treatment for gall-stones. A physical examination showed her to be well nourished, of medium stature, with a rather prominent thick-walled abdomen. Pain was complained of on pressure on the upper epigastric region, as well as over the usual site of the gall-bladder. The liver was enlarged and could be felt a little more than two fingers' breadth below the right costal arch in the mammary line. The spleen was somewhat enlarged. A diagnosis of stone or stones in the common bile-duct was made and operation advised.

The patient entered the hospital on October 5, and was put on a preparatory treatment, consisting of baths, liquid diet, and the daily administration of effervescing citrate of magnesia (salt), and the effervescing phosphates of soda. The operation was on October 9. The incision recommended by Bevan was employed, and disclosed a most peculiar looking, enlarged liver; it was dark bottle-green in color, with a very irregular, granular surface. The gall-bladder was enlarged to about twice its usual size. The site of the common bile-duct was exposed by depressing the colon downward and outward, lifting up the lower border of the liver and holding the stomach well toward the left. The common bile-duct looked more like a distended portion of the intestine than anything else; its walls were much thickened and tense. The cystic duct was somewhat distened. A stone could not be felt, neither in the cystic duct nor in either end of the common duct. After the usual protective packing with sterile gauze, the common duct was incised, after aspiration, and the inden

* Read before the Western Surgical and Gynecological Association, Des Moines, Iowa, Dec. 27, 1899.

finger introduced. No stone could be detceted, neither could I pass a suitable probe through an evident stricture near the duodenal end of the duct. Likewise it was impossible to establish a communication between the common and the cystic ducts through an impermeable occlusion of these, near or at their point of juncture.

I incised and emptied the gall-bladder of a bile-stained mucus, and tried to pass a probe through the cystic duct into the common bile-duct, but failed. The natural anatomic barriers to the passing of a probe through the cystic duct were necessarily, in part at least, obliterated because of the moderate dilatation of this duct. Evidently we had to deal with a very much dilated common duct which was acting as a reservoir for the bile, because of the occlusion of the route to the gall-bladder. This, however, gave no uneasiness—the strictured end of the common duct near the duodenum was the cause of my anxiety. How best to deal with this puzzled me considerably. The history of the case showed, without question, that this stricture was becoming tighter and tighter. The idea of draining the bile externally through the common bile-duct incision was rejected because I knew prolonged drainage of this kind was followed by a high mortality. I had no confidence in the letting up or giving way of the stricture into the duodenum after the relief of the irritation from the pressure of the bile by external drainage. I was about to attempt a retrograde dilatation of the stricture through an incision into the duodenum, but changed my mind, because if successful how could I be assured of its permanency. I had done a like procedure a number of times through the bladder, in dealing with strictures of the deep urethra, but then how different is one's ability to control the after-treatment. The only course open, in my judgment, was an anastomosis of the common bile-duct with the duodenum. This I proceeded to carry out with the aid of a Murphy button—no better technique would have been practicable.

After the introduction of the halves of the button into the duct and intestine, it appeared impossible to bring them together, not so much because of the great tension as because of the difficulty of grasping the half of the button in the duct sc as to admit of the necessary manipulation. The procedure became comparatively easy after passing the left index finger into the foramen of Winslow. I then could, with this finger behind and the thumb and middle finger of the same hand in front and opposite one another, control that half of the button. The duodenal half of the button was manipulated by the fingers of the right hand, and the parts brought properly together. The forceps devised by Dr. Murphy, for the purpose of grasping the halves of the button so as to better, in some cases, admit of a proper approximation, failed to be of service. I know these forceps are valuable aids because I have proven their value a number of times in my work.

The opened gall-bladder was sutured into the wound; it could have been excised but I disliked to prolong the operation, especially as the patient showed the not uncommon disposition to bleed, observed in cholemic patients. I hoped to restore the function of the gall-bladder by attacking the stricture of the cystic duct through my incision into the gall-bladder—the latter, if functionating, is a guard against the re-formation of stones in the ducts, hepatic and common. After irrigation with hot salt water, several strips of sterile gauze and a glass drainage-tube were introduced to the bottom of the field of operation and the wound closed, in part, by suture. I employed drainage because, in my manipulations, after introducing one-half of the button into the duodenum a slight leak occurred from the bowel, notwithstanding the usual precautionary measures—the depth of the operative field from the surface made this slip in technique possible.

Post-Operative History.—The patient reacted nicely from the operation but developed a remittent fever. This was attributed to a septic infection from the rather extensive wound, which repaired by granulation. The infection undoubtedly had its origin in the duodenum. The enlargement of the liver and spleen increased and the outlook for my patient became very unfavorable, although she was up and about the hospital. We were of the opinion that the wound had better be reopened and a search made for the nidus of the infection. A medical colleague, Dr. W. O. Bridges, rather inclined to the opinion that the increased enlargement of the liver and the spleen were not due to the sepsis, but rather to changes already developed because of the long-continued cholemia. The jaundice commenced to disappear soon after the operation, and all of the old pain vanished. I gave my patient Warburg's tincture cum aloes. Within thirty-six hours after commencing this remedy the temperature dropped to normal and remained so. It had ranged from 99 to 104 F., usually reaching 101 to 192 F., in the evening. A blood examination showed: reds, 2,530,000; white, 10,500; hemoglobin, 40 per cent; *no malaria.*

After the temperature was normal, December 1, the appetite became voracious and convalescence progressed rapidly. The button was never recovered; through a misunderstanding, after the end of the second week a laxity of observation was kept. The rapid clearing up of the jaundice and relief from pain proved the patulousness of the anastomosis. The patient returned to her home and will re-enter the hospital after a few months' recuperation, to have the useless gall-bladder excised. No bile has ever discharged from the fistula; only a little mucus comes away. The strictures of the ducts were probably the result of inflammation following pressure irritation from passed gall-stones. So far as I have been able to discover, this is the only reported American case of an anastomosis between the common bile-duct and the bowel. Some of our latest text-books on surgery mention that such an operation may be done. I knew this myself and so stated in a paper on the surgery of the gall-bladder and bile-ducts, which I published several years ago. The technique adopted in the manipulation of the halves of the button, I believe to be valuable. A thick abdominal wall, and an enlarged liver render any surgical work on the common bile-duct exceedingly difficult.

NOTE.—The patient, in a letter from her home, La Grange, Wyo., dated Jan. 24, 1900, says: "When I came home I weighed 115 pounds; now I weigh 126½ pounds. I feel fine, help do all the work and have a good appetite."

315 McCague Block.

Painless Plaster.

The *Journal de Méd. de Paris* of January 21 gives the following formula for a painless plaster that works like a cantharides plaster:

℞. Menthol
Chloral hydrate, āā ..... gr. xv 1
Cocoa butter ..... ʒ ss 2
Spermaceti, q. s.

M. Spread on cloth or diachylon plaster.

HYSTERIC LETHARGY WITH REPORT OF CASES.*

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A deep interest, both lay and professional, has always been manifested in the various states of morbid unconsciousness, especially when not associated with other obvious disturbances of health. To an involuntary, profound, unaccountable and especially more or less prolonged state of apparent sleep has always been assigned a certain element of mystery. While the mystery, at least in the transcendental sense, has largely faded, the interest and obscurity remain and there is recognized at present a group of cases with every gradation of intensity between moderately excessive somnolence and a stupor from which no amount of stimulation will arouse the patient; and varying in duration from a few minutes to several months. It is understood that the coma of gross brain disease, drug narcosis, etc., is excluded. A considerable number of these cases have been of toxemic origin. The narcotic toxin, in some cases, such as the persistent drowsiness which occurs as a frequent prodrome of diabetic coma, is principally of metabolic origin, although my own observations have convinced me that it is sometimes of gastrointestinal origin. Somnolence is frequently associated with pathologic obesity. I remember one case of a merchant, 45 years of age, weighing nearly 300 pounds, who said that he could sleep twenty-four hours a day, and that it was a punishment for him to remain awake at all. After reducing his weight some fifty pounds, and improving metabolism, principally by hydriatic measures, the morbid somnolence entirely disappeared.

After eliminating these chronic autotoxemic processes there still remains a large number of cases, which, *so far as we know,* are not toxic in their origin. Their nature is often obscure, although they can for the most part be regarded either as hysteric or epileptic in character. In 49 cases collected by Dr. C. L. Dana,[1] 26, or 53 per cent. were of hysteric origin, 11, or about 22 per cent., epileptic in character, the remaining 12 being due to other causes. It is to the hysteric that I desire to call especial attention, beginning with the report of some cases:

CASE 1.—Mrs. G., aged 37, married, was referred by Dr. G. B. M. Bower, Oct. 12, 1898.

History.—Her health had always been good, prior to the present illness, with the important exception that when 13 years of age she had chorea, and what her physician at that time called "rush of blood to the head," lasting intermittently for nearly five years. Her mother was distinctly emotional in character, and the patient herself had always been subject to occasional emotional disturbances, being especially prone to cry without adequate cause. For some three months she had been suffering from sudden attacks of unconsciousness, lasting from a few minutes to half an hour, or more. During July, 1898, she was in bed two weeks on account of frequency and severity of these attacks, coupled, her physician informs me, with indigestion, to which he says she is occasionally subject, and during which the lethargic attacks are always aggravated. During the July exacerbation she says her heart always felt as though it had stopped beating during the attack, and that breathing was interfered with by peculiar chest sensations; but Dr. Bowers has had an opportunity of examining her during some of these paroxysms, when she complained of cardiac distress, and dyspnea, and found the heart action and pulse perfectly normal. The spells of "falling asleep," as she called them, began without any other notable disturbances of health, and at first occurred only once a week, or at longer intervals; they then became more frequent until they finally occurred as often as twenty or thirty times a day. They were sometimes very brief, lasting only two or three minutes. As a rule she could be awakened by simply touching her with the finger over the hysterogenic zone, which, in this case was the forehead, and the region just below the eyes, thus including only afferent fibers of the trifacial nerves. No amount of pressure or manipulation of the neck, limbs, trunk, or ovarian region would awaken her. Occasionally pressure over the above described hysterogenic zone also failed to awaken her, and she would remain in this condition for half an hour or longer, although she would always make some motor response to pressure over this zone.

Several attacks occurred in my office during the first examination. The eyes would suddenly close and the head incline forward farther and farther, giving the impression that she would fall to the floor. The hands were partially closed and held in a semiflexed position a few inches above her lap, markedly rigid, but gradually falling by a jerky tremulous motion. During these attacks, each of which lasted from two to five minutes, there appeared to be not only complete anesthesia, but analgesia as well. I ran a pin into the flesh of each hand as well as into different parts of the limbs and trunk, without eliciting the slightest response in facial expression or otherwise. Manipulation of the limbs with pressure and pinching produced no effect, and a little muscular rigidity was constantly observable.

There was no drowsiness preceding or following the lethargic attacks, and when she emerges from one of them, she clearly remembers what she was doing or saying at the moment the attack developed, but from that moment till the awakening there is a complete interregnum of consciousness with absolutely no memory of anything that transpired during it. In all the attacks that I saw she awoke with a "start," and with a peculiar smile as though she had been highly amused.

Her general health had not been so good recently. During the last few months her weight had fallen from 160 to 137 pounds, a loss of 15 per cent. Her bowels were regular and the dejections soft and free; there was no stomach nor bowel distress, eructations of gas, nor other evidence of gastro-intestinal disease. Neither was there vertigo, tinnitus aurium, nor photopsia. The liver and spleen were normal, the heart perhaps slightly enlarged, but otherwise normal, and there was no Romberg symptom. The knee-jerks were exaggerated, but there was no ankle-clonus. Ophthalmoscopic examination was entirely negative. There was slight amblyopia, not accurately tested, but the patient said she was unable to see as well as formerly. The total quantity of urine for twenty-four hours was 1900 c.c., the specific gravity 1020; reaction acid, acidity 35 degrees; urea 3 per cent. or 17 grams; total solids 88 grams; no albumin, sugar nor indican. No cutaneous anesthesia could be found.

Examination of the visual field showed reversal and marked contraction, the precise nature of which will be considered later, and on the basis of this phenomenon, together with the distinct neuropathic tendency, I sent the patient back to her physician with a positive diag-

*Presented to the Section on Neurology and Medical Jurisprudence, at the Fiftieth Annual Meeting of the American Medical Association, held at Columbus, Ohio, June 6-9, 1899.

[1] Trans. New York State Medical Society, 1894, pp. 257-281.

nosis of hysteric lethargy. Considerable improvement followed a general line of treatment, including tonics and electricity, but a few weeks later she had a spell lasting some four days, during which time she was unable to open her eyes, nor could they be forced open by any reasonable effort on the part of her attendants. Consciousness remained intact. I did not see her during this time, but she has since been much better, the lethargic attacks occurring very rarely, and her general condition being very much improved[2].

There are several points of considerable interest in this case, one of especial diagnostic value being the limitation of the visual fields. The fields for blue, red and green maintained their normal relations. The blue was, as in health, the largest of all the color fields, about 60 degrees outward and 40 inward; but the field for white, instead of being 90 outward, and 60 degrees inward, as it should have been, was only 45 degrees outward and 40 inward. The field for red, instead of being larger than the blue, as is frequent in hysteria, was about the same as for the white. The field for green was slightly smaller than that for red. The fields for blue, red and green were therefore normal as to their relative size, the reversal being limited to the field for white, which, instead of being considerably greater than the blue, was considerably less, closely approximating the field for red.

Some little importance is also to be attached to the tremulous movements of the eyelids, first pointed out by Charcot, and conspicuous in this case.

The marked nutritional disturbance evidenced in this patient by the loss of more than twenty pounds in weight is very significant, and has been reported by Gilles de la Tourette, Carthelineau and others as present in a large proportion of cases. It is a feature well worthy of careful study, and where the paroxysms of lethargy are as brief as in this patient, and the appetite as good, its explanation is neither simple nor easy.

In this case we find a somewhat excessive amount of solids in the urine, although the urea was strictly within, or rather under, the range of health. The excess was made up principally of chlorids and phosphates and especially the latter, indicating excessive destructive metabolism in the nerve centers and elsewhere. In cases in which the paroxysms of lethargy lasted over a period of days, weeks or months, as is occasionally reported, the explanation of loss of body weight is sufficiently obvious. It is, however, frequently prevented from becoming excessive in these cases because of the fortunate circumstance that the reflexes, and particularly the pharyngeal, are not abolished, and that the patients can be fed although quite unconscious, by placing semi-solid food well back in the throat. The loss of more than 15 per cent. of total body weight within a few months, with a good appetite fully gratified, and a somewhat excessive secretion of urinary solids, points to a more profound disturbance of nutritional processes than is commonly supposed to be present in a so-called purely functional disease like hysteria. The metabolic processes of the body are clearly under nervous supervision, and in a disease like hysteria, involving the highest nerve-centers in all their cardinal functions—psychic, sensory and motor—it is really not surprising that in the general cataclysm of perverted nerve functions these metabolic processes should suffer either by acceleration or restraint.

Two other cases of similar character have fallen under my observation but were not studied or recorded with sufficient care to permit their being fully reported. Both patients were women. The first was married, and some 35 years of age, and her general health was wretchedly bad. She suffered severely from indigestion, and was the subject of attacks of hysteria major which frequently terminated in a state of lethargy associated with complete anesthesia and catalepsy. Her attacks would last for several hours, during which I frequently ran pins into different parts of the body without any sign of pain or other sensation. They recurred during a period of several years until the patient was finally lost sight of. She ultimately died, I have heard, of some gastric or intestinal disease.

The other patient was a school girl about 16 years of age, who had all the stigmata of hysteria and a rank heredity of hysteric parentage. I saw her in a series of lethargic attacks, or rather, almost one continuous attack, lasting over a period of a week or more with very slight intermissions occurring two or three times. Her recovery was complete, and no recurrence took place so far as I know. There was absolute anesthesia and analgesia.

The pathology of such cases is exceedingly interesting and equally obscure. It involves the pathology of the entire subject of hysteria, our knowledge of which has by no means kept pace with the study of its clinical phenomena.

In regard to the entire group of cases of lethargy Preston declares[3] that every case which has heretofore been studied with care and fully reported has shown many of the stigmata of hysteria, although as quoted above, Dana accepts the records—or at least did in 1884—as proof of the epileptoid origin of a certain proportion occurring independently of these conditions. It would seem that the real pathology of these attacks must be sought for in evanescent changes in some of the constituents of the upper neurones, either occurring as a primary intrinsic change or secondary to certain morbid blood constituents, the latter being the result either of faulty metabolism—leucomains pathologic in kind or quantity—or absorbed from a mucous surface, principally that of the alimentary canal—ptomains and toxins of bacterial origin—in quantities too great for the defensive machinery of liver, leucocytes, etc., to dispose of. The trend of evidence, to my mind, would incline toward the acceptance of both of these hypotheses, the first being constant and essential, the second accidental, contributory and inconstant. The change must be somewhat wide-spread in distribution, involving as it does the psychical, sensory and motor department of the higher nervous system the same as is the case in the ordinary types of hysteric attacks, for hysteric lethargy is something much more than sleep, inasmuch as there are present complete anesthesia and analgesia, together with certain motor disturbances, which latter Preston says are always present.

The danger from these attacks is usually slight, although Semelaigne and Janet[4] have reported cases which terminated fatally, and such attacks are always exceedingly alarming to friends of the patient, who fear brain disease of a serious character. The treatment, aside from electricity and other forms of stimulation to the hysterogenic zone, is that of the hysteric state which forms its background, the consideration of which is altogether too large a topic for this paper.

107 West Main Street.

[2] Dr. Bowers reported Sept. 21, 1899, that she had been entirely well for six months.

[3] Hysteria: Its Nature and Treatment, p. 162.

[4] Arch. Gen de Med., 1891: quoted by Preston.

NERVOUS DEPRESSION AS A SEQUEL OF INFLUENZA.

BY B. J. BYRNE, M.D.

ELLICOTT CITY, MD.

I wish especially to call attention to two features of this depression, for I do not know that they follow any other disease, so I regard them as the most remarkable and probably the most important of any of the phenomena that are associated with influenza. These features are the subnormal temperature and the reduced pulse-rate. In the cases of which I have kept records, the temperature ran from 97 to 95 F., and the pulse from 60 to 48, for weeks and months. This is most characteristic of the disease, and it strikes me as most strange that it has not been described. I have read over the works of Osler, Wood, Fitz, Lyman, Whittaker, Struempell, Tyson and Pepper, and none of them speak of this subnormal temperature and reduced pulse-rate which, I have noticed, follow influenza.

Tyson says: "Weakness following influenza may be extreme, and the slightest effort, physical or mental, promptly convinces the patient of this, and the duration of the weakness may be prolonged for months." We have all observed this, and in most of these cases if the temperature is taken it will be found to be subnormal. Just so long as the temperature is subnormal, just that long will the patient show this nervous depression.

Osler, in his concluding remarks on the treatment of influenza, says, in one line: "The depression following this disease is one of the most unpleasant and obstinate features." Here I wish to call attention to a matter that I think many able and otherwise accurate physicians are unmindful of, namely, the full use of the clinical thermometer; e. g., many fail to make use of this to learn of subnormal temperatures. It has been my custom to use it this way ever since influenza first made its appearance, and if this custom were more universally practiced by physicians many would be surprised to learn how often there are temperatures of this character.

The rectum affords the most trustworthy means of getting a correct temperature, but in my cases, for convenience, I have used the mouth. I take special care that the mercury end is placed under the tongue and as close to the lingual artery as possible; when I have had nurses who kept a record of the temperature, I always, on visiting the patient, take the temperature myself.

I had my best opportunity of observing this depression at St. Charles College, among the students—just where we might expect to find it—whose sole occupation is that of the mind. The symptoms are all those of a diminished metabolism, that is, a diminished production of animal heat, lowered pulse-rate and depressed circulation accompanied by intellectual inertia, mental exertion bringing on head troubles, most often in the occipital, sometimes in the temporal regions, dizziness and rather odd sensations about the head other than pains or aches. Insomnia was not uncommon. The symptoms showed that the brain was not receiving the needed blood-supply. All these symptoms or troubles continued three or four months after the acute attack of influenza had passed, the patient often having a fair appetite and not losing any in flesh.

How is this diminished metabolism brought about? Evidently through nervous depression. The nervous system exercises a control on both of the factors concerned in the regulation of the temperature; on the loss of heat by means of the vasomotor system, which regulates the amount of blood in the deep and superficial parts of the body, and by the respiratory center which controls the frequency and depth of respiration; on the production of heat through the nerves which control the activity of the tissues and chiefly the muscles.

Suggestively, the things that might be considered to influence temperature are: the heat centers in the brain and vasomotor nerves having their center in the medulla oblongata; the drugs that lower temperature, as chloroform, ether, morphia, chloral, and nicotin; those that raise it, as cocain, atropin, brucin, caffein and veratrin. It was on this theory that I used citrate of caffein, from which I got the best results. Temperature is also influenced by mental and muscular work, by age, food, race, etc., and more by sleep, normally falling to 97 F. between the hours of 2 a.m. and 4 a.m. All the factors mentioned influence metabolism and therefore temperature.

In the acute stage of one of my cases of influenza that took much the form of cerebrospinal meningitis, the temperature ran riot, and on three different thermometers the mercury was driven as far as the tube would allow, that is to quite 111 F. It was evident in this case that the governing heat centers were out of gear. It remained at this point a very short time only and then dropped to normal.

In the acute stage, accompanied with fever and severe pain, I gave phenacetin in 5-grain doses every six hours hours until the pain was relieved. The coal-tar preparations being so much used in the treatment of influenza, we might suspect that this condition of temperature and pulse was brought about by them, but in the cases where phenacetin was not used the same conditions were present.

The medical treatment for the depression consisted of strychnin in full doses—1/20 gr. of the sulphate—three times a day; compound syrup of the hypophosphites, digitalis, elix. ferri-quinia and strychnia, spts. ammo. aroma., tinc. valerianæ, ammo., elix, guarana, whisky, brandy, tinc. nucis vomicæ and asafetida; the cold plunge and cold shower-bath. Medical treatment was rather unsatisfactory. Some benefit was derived from the cold bath, but it was not persisted in long enough to form a positive opinion. Brandy in ℥ss doses four or five times a day seemed to add to the comfort of patients. Entire rest seemed to be the treatment. Citrate of caffein in 7 gr. doses three times a day helped the head troubles and seemed to help pulse and temperature.

CASE 1.—MR. K.

DATE.	TEMPERATURE.		PULSE.	
	M.	E.	M.	E.
May 10	96.8	98	60	56
May 11	98	98.5	56	70
May 12	98	98	56	70
May 13	98	98.5	60	66
May 14	97.4	99.4	64	66
May 15	97.4	98.8	60	66
May 16	97.6	98.6	62	64
May 17	98	99	70	70
May 18	97.6	98.6	70	70
May 19	97.4	....	70	..
May 23	97.4	....	56	..
May 26	97	....	68	..
June 16	....	99.4	..	70
June 17	96.6	98.2	62	60
June 18	98.6	99	62	64
June 19	96.6	98.4	64	60
June 20	97.2	....	60	..

*Read before the Howard County (Md.) Medical Association, July 5, 1899.

CASE 2.—MR. R.

DATE.	TEMPERATURE.		PULSE.	
	M.	E.	M.	E.
May 23.....	....	97.4	..	66
May 24.....	96	....	64	..
May 25.....	95	98.5	60	60
May 26.....	96	....	52	..
May 27.....	96.2	....	54	..
May 28.....	97	98.8	46	72
May 29.....	97.8	99.2	60	72
May 30.....	97.6	....	58	..
June 13.....	....	98.5	..	64
June 14.....	97.4	98.6	48	52
June 15.....	97.6	99	52	60
June 16.....	96.4	97.6	52	60
June 17.....	96.8	97.8	52	60
June 18.....	96.2	97.6	52	56
June 19.....	97	98	48	54
June 20.....	97.2	....	56	..

CASE 3.—MR. M.

DATE.	TEMPERATURE.		PULSE.	
	M.	E.	M.	E.
May 2.....	....	98.5	..	56
May 3.....	97.2	98.5	56	58
May 4.....	97.2	97.8	50	56
May 5.....	97.4	99.4	60	68
May 6.....	97.2	98.6	60	60
May 7.....	98	....	60	..
May 8.....	97	99	54	60
May 9.....	97.2	....	56	..
May 10.....	97.6	98.5	66	68
May 11.....	98	99.4	60	70
May 12.....	97.8	....	60	..

CASE 4.—MR. C.

DATE.	TEMPERATURE.		PULSE.	
	M.	E.	M.	E.
May 12.....	....	98.2	..	64
May 13.....	97.4	98.2	56	60
May 14.....	97.2	98	48	68
May 15.....	97	99.2	48	70
May 16.....	97.2	98.4	48	64
May 17.....	96.6	97.4	50	64
May 18.....	96.6	....	56	..
May 19.....	96.8	96.6	60	60
May 20.....	95.8	97 4	60	60
May 21.....	96.4	98	48	70
May 22.....	96	....	48	..
May 23.....	96.4	97	56	54
May 24.....	97.2	98.2	50	64
May 25.....	97.4	96.8	52	72
May 26.....	96.8	....	50	..

A fuller record of pulse temperature was made in many other cases, but was mislaid—there is sufficient here, however, to show character of pulse and temperature.

TREATMENT OF A COMMON COLD.*

BY FRANK WOODBURY, M.D.

Associate Professor of Laryngology in the Philadelphia Polyclinic and College for Graduates, etc.

PHILADELPHIA.

When a patient tells us that he has "a bad cold," or that he is "suffering with a cold," we at once understand him to mean that a group of symptoms are present, which are the usual results of an exposure to cold, or which frequently follow a chill, or a lowering of the surface temperature of the body, with insufficient reaction. Characteristic of this condition are muscular soreness, or actual pain on motion—muscular rheumatism—in different parts of the body; a general feeling of heaviness and indisposition to effort; more or less difficulty of breathing; partial obstruction of the nasal chambers, owing to the swelling of the mucous membrane; frequent sneezing; and a free discharge of a thin watery secretion from the nasal chambers and associated sinuses, often accompanied by a slight febrile condition. The tonsils may become inflamed, especially if they have been the site of former attacks. Other portions of the air-passages, or the alimentary canal, may suffer from the catarrhal inflammation. More rarely, neuralgia results, the branches of the trigeminal and the occipital nerves being most frequently affected.

Directing our attention particularly to the condition of the nose, it may be of interest to inquire why it is so frequently the site of catarrhal disorders. It was the opinion of Schneider, after whom the Schneiderian membrane was named, that catarrh is the result of indolence and luxury; in other words, it is a part of the price we are required to pay for our enjoyment of the amenities of civilization. If, however, we should infer from this statement that man, in his primitive, uncivilized condition is not subject to this form of disease, we should be in error. Dr. Sims, of London, who spent several years in equatorial Africa, at a mission station, informed me that one of the most striking and most disgusting sights that he witnessed while there, was that of the natives coming out of the bush, in a long file, each carrying a burden, and each with strings of mucus hanging from his nose. Dr. James Johnston, of Brown's Town, Jamaica, who crossed the African continent in 1892, recently showed me a native African handkerchief. It was a finger-shaped flat piece of iron, which he said was used as a scraper and then wiped on a convenient tuft of grass. No African with any pretensions to recognition by the local "four hundred," would think of venturing to appear on the streets of the village without having one or more of these indispensable adjuncts to the African full-dress toilet depending from his girdle. This leads me to remark that since both civilized and uncivilized man has nasal catarrh, we may paraphrase the famous definition of man as the "animal who laughs," and style him "the animal who uses a handkerchief."

While on the subject, it may be as well to recall an interesting anatomic fact mentioned by Dr. Harrison Allen in a communication to the American Laryngological Association, some years ago. Dr. Allen directed attention to the relatively enormous development of the fore-brain in man, which, in its progressive development had crowded forward on the nose, so that this has really become a degenerate organ in man as compared with the olfactory organs of many lower animals. He remarked also that it was in accordance with the laws of evolution that organs in the process of extinction, like the human nose, and the appendix vermiformis, should be especially liable to disease. This is doubtless one of the reasons why man is so prone to have nasal irregularity and nasal catarrh.

My object in making this communication, however, was not the discussion of the pathology of coryza, but to speak of a therapeutic observation which seems to me to merit being called to your attention. It may not have the same value from a scientific standpoint as the discovery of a new variety of bacillus, but I hope that it will not be found entirely valueless from a practical point of view.

At the outset, I may say that I have abandoned all attempts at alleged specific treatment by means of irrigation of the nasal chambers with potassium permanganate, quinin, phenol, resorcin, and other agents of the kind which have been recommended in the treatment of acute rhinitis. Nor, in view of the abuse which

* Read before the Section on Otology and Laryngology of the College of Physicians of Philadelphia, Dec. 20, 1899.

has arisen from its use, would I for such cases give cocain, in powder or in spray, for self-treatment. When necessary, I prefer to make such applications myself, applying 5 or 10 per cent. solution to the swollen turbinals, with the aid of the nasal speculum and a good illumination, so as to observe the effects. The patients, occasionally, may use a warm alkaline douche, or spray, followed by a few drops of liquid petrolatum, etc., where the local symptoms are severe. On the other hand where they are slight, and in the absence of any special reason for such treatment, I do not devote any attention to the nasal chambers, but leave the nose alone. Where the patient, upon rising in the morning, finds that he has a cold, it often happens that 5 or 6 gr. of quinin, or some cathartic medicine, will cause a cessation of the symptoms, especially if he takes exercise in the open air. On the contrary, a sedentary occupation, especially with brain work, will greatly aggravate the disorder. This leads me to say that in my opinion the neurotic element in a "common cold" has been too largely ignored in the plans of treatment usually followed. It is a common observation that when one person gets a cold in a family, others generally follow, and I do not think that this is because their handkerchiefs are washed together, but they are affected largely from sympathy and because they are under similar conditions. We all can recall a case, reported some years ago, by Dr. John Mackenzie, of Baltimore, of a woman who was the subject of annual rose cold, and who on one occasion had a severe attack of her malady after smelling an artificial rose. This may have been simply coincidence; but, on the other hand, it has the appearance of being a strong illustration of the neurotic character of acute nasal catarrh. I have a patient, a young woman, who, whenever she uses a tooth-wash containing soap-bark, invariably gets an attack of coryza in consequence. Many individuals are known to get colds in the head after smelling ipecacuanha, and other substances. In the report of the cruise of the *Corwin*, it is stated that when the members of the ship's company returned to San Francisco, they all suffered with colds, presumably from inhaling the dust of the streets, they having been free from colds during their previous four months' stay in the Arctic regions.

With the view of acting directly on the neurotic element of the cold, I have used for the last two years a combination of acetanilid, bromid of sodium, and compound morphin powder of the U. S. Pharmacopeia. This combination is given in small doses of two or three grains. The manner of administration is such as to aim at a cumulative effect, by giving the powders, or capsules, one every half hour until four are taken, and then every hour or two until the desired effect is obtained. The proportions of the ingredients are varied with the character of the symptoms. Where neuralgia or muscular pain is present, at the beginning of a cold, I give 3 gr. of the sodium bromid, 2.5 of compound morphin powder and 2 gr. of acetanilid. Where the local symptoms are severe and secretion from the nose is excessive, I write the prescription as follows:

R Pulv. morphinæ comp. ..... gr. xx
Acetanilidi ..... gr. vi
Sodii bromidi ..... gr. x
M. Divide in capsulæ, No. xii; to be taken one every half hour until four are taken, then every two hours.

This usually breaks up an ordinary cold in a few hours. The doses of the active ingredients are so small, in this prescription, that the patient absolutely experiences no effect, as the rule, except that disease is overcome and ease takes its place. The patient is not restricted in his movements, and attends to his business as usual. In the case of elderly or weak persons and in young children, however, it is advisable to keep the patient under observation, under conditions favorable to recovery, as we know the tendency of such cases to run into pneumonia or intestinal catarrh. After the catarrhal symptoms are relieved, a tonic, especially quinin, may often aid in bringing the patient back to the normal condition.

Where the case has advanced further, and fever is present, the usual treatment with citrate of potassium, spirits of nitrous ether, or small doses of aconite tincture, with hot drinks to excite the action of the skin and kidneys and reëstablish the peripheral circulation, is in order. The old nurse's plan of administering a dose of castor-oil to a baby, "to carry off a cold," may also be adopted occasionally in older persons with advantage, the fluid extract of cascara answering well for this purpose. The method of treatment I have mentioned above is most efficient in the incipient stage. By its use I have often been able to obviate the necessity of resorting to any of the other measures, which experience has shown to be of value in the treatment of "a common cold."

DANGEROUS PULMONARY HEMORRHAGE IN TUBERCULOSIS AND ITS MANAGEMENT.*

BY NORMAN BRIDGE, A.M., M. D.
LOS ANGELES, CAL., AND CHICAGO.

Pulmonary hemorrhage, besides being sometimes dangerous, and occasionally fatal, is always a terror to the patient. When produced by tuberculosis the patient is always looking for recurrences and is apprehensive, although small hemorrhages are, in such cases, useful and dangerless. The patient can never know that a slight oozing of blood may not suddenly develop into an alarming hemorrhage. You may assure him, in the most positive manner, that his little hemorrhage is a very useful thing, and that those who frequently have such are more likely to recover than others, but as soon as he begins to expectorate color, he will be seized with fear. It is important, therefore, to have patients, as well as their nurses and friends, informed as to the nature of pulmonary hemorrhage; as to the rational things that may be done for it in case it is severe, and to do the things, if possible, that may prevent it from becoming severe. They should be instructed that slight bleedings do no harm, and that they are not to treat or doctor them, but that the patient is to be kept in such a condition as to ward off any influence that may provoke a severe hemorrhage. The patient, during a small or great hemorrhage, should be as quiet as possible, should eat sparingly, should, preferably, be resting in a nearly horizontal posture, and his body should be warm and unhampered by clothes. He should avoid constipation, and be unstimulated. He should be mentally tranquil and unperturbed by anything; anger, fear, worry and apprehension are equally dangerous—they may at any time change the conditions at the site of the ruptured vessels so as to bring on a large bleeding, when without them nothing but a little useful oozing would take place.

Many hemorrhages from the lungs are attended, or

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followed, by fever, or an increase of it, lasting a few days, and of such a character as to suggest that an extension of the tuberculous process has occurred in connection with the hemorrhage, and probably causes it. We know that in many of these cases an extension of the disease does occur; but sometimes in the absence of evidence of this fact it appears that the hemorrhage must have opened new channels of absorption into the lymphatic system, and so of infection, to produce the fever. Yet the prompt improvement of many patients after a hemorrhage strongly suggests that in the process some mass of pus- and microbe-breeding tissue is washed away, thus freeing the system from a certain amount of harmful influence.

The amount of blood lost in a hemorrhage is nearly always overestimated. A large quantity of mucus and serum is expectorated with the blood, often matter from the stomach is mixed with these, and frequently a receptacle is used containing water; so that a half pint of blood becomes easily magnified, in the eyes of the bystanders and patient, into a quart. A hemorrhage need rarely be regarded as serious in degree unless and until it causes faintness or produces a considerable acceleration of the pulse. The account that the patient and his friends give of a hemorrhage of a quart of blood, or even of half that amount, that has not disturbed the circulation or caused fainting, or even much paleness, must always be considered as inaccurate.

The mechanics of hemorrhage are simple. Manifestly it occurs because the blood-pressure is too great for the resistance of the vessel walls; there is a disproportion between the two. But the vessel is not eaten into by an ulcer; the tuberculous process invades the tissues about the vessel and then its walls, weakening them, causing them to be brittle so that they sometimes give way from the normal pressure—oftener by some increased pressure produced by unusual circumstances, as overaction of the heart, either mental or physical excitement, overstimulation by alcohol, drugs, or even the process of digestion; or by sudden muscular strain, even by coughing. Each act of coughing produces a sudden change in the blood-pressure of the intrathoracic vessels. The moment before the explosive act of the cough, when the air-pressure is increased by compression of the chest and closure of the glottis, the blood-pressure is resisted; there is increased pressure against the outside of the vessels, which tends to prevent hemorrhage. The explosive out-rush of air, however, takes off the pressure from without the vessels so suddenly that the presure from within is more likely to cause rupture and hemorrhage. A to-and-fro strain on the vessels is caused by every act of cough. The thing that happens in the hemorrhage, if the vessel opening is not too large, is the formation of a clot at the seat of rupture. The surfaces are rough, the vitality of the tissues at this spot is lowered, even actually dead tissue is present, all conditions strongly tending to produce a clot if the normal elements of the blood that are required for this purpose are present. If the blood-pressure is not too great, therefore, the clot always closes—and permanently—the opening; healing then takes place, and probably the obliteration of the minute vessel at the point of rupture. This is tne normal and physiologic method of stopping the leak.

The obvious thing for us to do is, if possible, to lessen the vascular blood-pressure at the point of rupture, allowing the clot to form and close the opening. The clots became organized, and through them, often, the obliteration of the vessel is made easy; the circulation being kept up by the undiseased vessels of the neighborhood and by the new ones formed in the tissue of repair.

In a severe hemorrhage the measures to be resorted to should have for their purpose the immediate lessening of the blood-pressure. To this end the patient should: 1. Minify his exertion—otherwise, keep still. The movements of the body unavoidably more or less increase the circulation, and therefore the blood-pressure. 2. He should avoid taking deep breaths—advice that is usually not needed, although it sometimes is. Deep breathing not only increases blood-pressure by reason of the physcal exertion of it, but, by the process of aspiration, it additionally increases it at points beyond the region of obstacles to the ingress air; that is, to points beyond, or distally, to the seat of the oozing. Quiescence of the lung tissue where the bleeding is going on, or liable to recur, would be further facilitated by collapse of it through distension of the pleural cavity. Here is a logical use for the treatment proposed by Murphy, by injection of nitrogen gas into the cavity, in such cases as are not complicated by adhesions. 3. The bowels should be kept open, as constipation is liable to produce an intropulsion of blood and so increase the vascular pressure. 4. The patient should have loose clothes, and his extremities should be kept warm, by artificial means if necessary, as this favors distension of the superficial vessels. Nervousness, and especially fear and apprehension of calamity, must be avoided. To this end the positive assurances of the doctor are often valuable, but in most cases of any severity, a dose of morphin and atropin should be given hypodermically. Such a dose makes the patient forget his trouble and danger, and gives him a sense of great tranquillity. 6. The heart force, when it is beating violently, may with benefit be reduced. To this end aconite and veratrum may be used, even in more liberal doses than is usual; but it should always be remembered, in giving these drugs, that absorption from the stomach is likely to be slow, and that we are liable, if we give repeated doses, to discover a cumulative effect, and possibly a poisonous one, a few hours after beginning the use of the medicine. One drop of the tincture of aconite or veratrum, or one of each, may, with propriety, be given every half hour, for several doses; then every hour, till a distinct effect is produced. 7. Blood-pressure in the chest may be reduced by dilating the vessels of the extremities. To some degree morphin and atropin do this, so there is a double purpose in using this combination. I do not forget that it is alleged, perhaps correctly, that the blood-pressure is increased by these drugs, yet I believe that in cases of severe pulmonary hemorrhage the pressure inside the chest is relatively reduced by them; certainly their great value in tranquillizing the patient overbalances, ten-fold, any slight harm they might do.

Another measure of great value consists of tightly-drawn cinctures about the limbs at their junction with the body. An ordinary linen or cotton handkerchief, tied by the corners, makes a good cincture. Where danger is imminent, but not present, they may be tied loosely about the limbs with one knot, and left there to be drawn up and instantly fastened with a second knot on fresh hemorrhage occurring. It is easy to adjust the tension so as to segregate a large volume of blood in each limb without seriously darkening its color or interfering with its nutrition or comfort.

Medication through the stomach is, in the presence of a severe hemorrhage, unadvisable. No absorption can be hoped for that will be prompt enough to do any immediate good, and the patient is liable to swallow

great quantities of mucus and blood, and even to vomit, thus tending to prevent absorption. The hypodermic method alone should be resorted to in all such cases.

The profession has a heritage of myriads of medicaments and treatments recommended for this calamity. Most of them are entirely useless. The most common of them all, perhaps, as used by the laity, is common salt, which is often swallowed in large quantities. It can have no other useful purpose than to divert the patient's mind and the minds of his friends. The inhalation of turpentin fumes can do no possible good. Ice to the chest over the supposed seat of the bleeding may do good; it certainly can do no harm, and it often comforts the patient in the belief that he is being helped and protected. There is no objection to using it. There is no reason to believe that the internal administration of hamamelis does any special good, and certainly it is of no value given at the time of a hemorrhage.

The drug most often used by the profession, after morphin and atropin, is ergot—a drug that should never, under any circumstances, be given for this purpose. If it has any physiologic action on the bleeding vessels it is to increase the blood-pressure within them, and thus imperil the fragile walls of those in the diseased area. The only real reputation for proved usefulness that ergot has ever acquired is based on the theory that it causes contraction and increased tension in unstriped muscular fibers; all the investigators have claimed that it so acts, and it is employed for the contraction of the uterus in hemorrhage on that theory, as it is in certain uterine tumors—not for its power to contract the blood-vessels, but rather the mass of the uterine muscular fibers, and so compress bleeding vessels and expel tumors.

If it has such an effect on the blood-vessel walls, as it undoubtedly has, it must influence them all, and so increase the blood-pressure, and this is found to be the case. Every particle of increase of general blood-pressure by so much increases the danger of a rupture at the weakest spot, and the weakest spot is where the vessel walls are brittle from disease. Why the profession will continue to use the drug, with the common knowledge of its physiologic action, is past understanding, except on the theory that fashion and custom are with many of us liable to take the place, in our mental processes, of science and reasoning, and even of common sense. To me, the use of ergot for dangerous pulmonary hemorrhage is tantamount to malpractice.

Of all the measures ever used for this accident, probably morphin—preferably with a proportionate admixture of atropin—administered hypodermically, is more valuable than all others put together. It may be used rather freely; it should never be used recklessly. A quarter of a grain may be given every half hour, for two doses, if the urgency of the case demands it; then the intervals should be lengthened, and the effect on the nervous system carefully watched. The amount given should be gauged by its effect on the nervous system, not by its control of hemorrhage. Slight somnolence should be produced, nothing more. With knowledge of a vast number of cases where this medication has been used, I have no memory of a single instance where a poisonous or harmful effect was produced by it.

Morgue-Keeper an Officer.—Judge McAdam holds in People vs. Keller, at a trial term of the supreme court, New York County, that the position of morgue-keeper in the City of New York, being a position of public trust, not transient, occasional, or accidental, and commanding a fixed salary by the year, is an office, within the meaning of the authorities.

AN INTESTINAL ANASTOMOSIS IN A CASE OF A TUBERCULAR FECAL FISTULA OF TWENTY YEARS' STANDING.

BY JACOB FRANK, M.D.

Surgeon to the German Hospital; Consulting Surgeon to St. Elizabeth's Hospital, and Jewish Orphans' Home.

CHICAGO.

Mrs. H., aged 50 years, consulted me at St. Elizabeth's Hospital in September, 1898, and gave the following brief history: At about the age of 14 she was taken sick with pain in the abdomen. No diagnosis was made by her physician, and, after many months of suffering a spontaneous opening appeared at the umbilicus, with a discharge of large quantities of pus. About twenty years before I saw her, a fecal fistula appeared through the same opening, discharging both pus and feces.

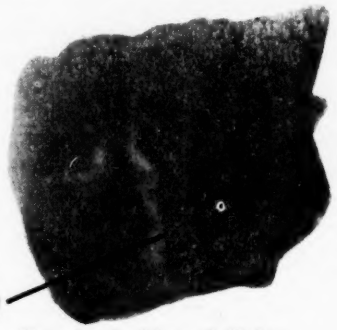

FIG. 1.—1. Line of Union.

On examination a large, hard, immovable mass could be palpated, irregular in outline and extending from the site of the fistula along the left iliac region far into the pelvis. A vaginal examination revealed both anterior and posterior culs-de-sac filled with a hard mass and the uterus firmly fixed.

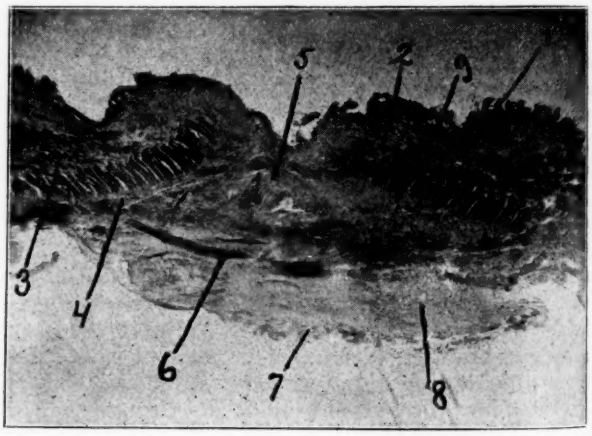

FIG. 2.—1, mucosa; 2, submucosa; 3, inner muscular tunic (circular); 4, outer muscular tunic (longitudinal); 5, scar; 6, peritoneum; 7, omental adhesions; 8, young tubercle; 9, muscularis mucosæ.

On September 17 an incision was made around the fistula, and on opening the abdomen, the intestines were found matted in a bunch, and all surrounding structures greatly thickened, extending down into the pelvis. With great difficulty the fistula was isolated and a resection made, the anastomosis being performed with a one-inch, Frank's decalcified bone coupler.

The patient rallied nicely from the operation, and was on the road to recovery when a new fistula opened at the lower end of the incision. However, feeling pretty well, she was up until about October 16, and on the 17th, nearly one month after the operation, succumbed.

On post-mortem, adhesions were found around the site

operation. The intestines and omentum were matted together in one mass, which was very hard, extending into the pelvis. The *line of union* macroscopically (Fig.) was found in a very good condition, and under hydraulic pressure did not separate. The intestine on either side of the union was unhealthy in appearance, and had scattered upon its surface small tubercular nodules about the size of a pinhead.

The report on the microscopic examination, from Dr. L. Feingold, showed that a section was made through the line of union (Fig. 2) and the following found: The mucous membrane did not cross the line of union. The submucosa was not regenerated, but thickened and very vascular. Neither were the circular and longitudinal muscular tunics regenerated, reaching as far as the line of union, blending with the scar which was formed by the peritoneum. The peritoneal coat was thickened by young, inflammatory, connective-tissue cells and blood-vessels, this thickening being especially marked over the line of union. Omental tissue was also found adherent to the peritoneal coat. The scar extended from the peritoneum to the muscular tunics, a small amount of scar tissue covering the ends of the submucosa and muscularis mucosa, but not filling the gap, as is seen in the illustration. The scar was very vascular and composed of embryonal tissue. A great portion of the mucosa was removed by rough handling.

I report this case not only to show the few interesting clinical features of the case, but more than that to show the very good union that took place within a comparatively short time, with my decalcified coupler, in spite of the severe condition of the case, and which is well illustrated both macroscopically and microscopically.

17 Lincoln Avenue.

DESCRIPTION OF A CASE OF ORAL SURGERY.

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MILWAUKEE, WIS.

The deformity shown in Figure 1 was caused by a burn at the age of 3 years, the patient being, at the time of operation, about 20 years old. The chin was held tightly against the breast by the cicatricial tissue; one arm and hand were also grown to the breast, the wrist being turned so that the thumb was twisted back upon itself, its palmar surface next the skin of the patient's chest. By reason of the continual strain occasioned by the effort of the muscles of the back of the neck constantly endeavoring to hold the head up, in order to enable the subject to look straight before him, the lower jaw was deformed and elongated in such a manner that the first inferior molars met the superior cuspids in occlusion, the anterior lower teeth protruding forward in the shape of a fan, giving an expression to the face, by tension on all of the facial muscles, which can only be understood by reference to the pictures. Dr. W. H. Earles, surgeon of the Milwaukee Medical College, performed the first operation, by dissecting away the distorted cicatricial tissue and transplanting a large flap of healthy skin from the unaffected shoulder on the opposite side. The patient was then given into my charge, and one week afterward I removed all that portion of the inferior maxillary, from the bicuspid forward, including the teeth it contained. I then dissected away the soft tissues and, with the surgical engine, a sloping surface was cut in that portion of the jaw still remaining, by reason of its unusual thickness, which enabled me to make a fair imitation of the form of a chin. The soft parts were bound on this with bandages in such a manner as to become adherent and give the face a natural appearance.

Figure 2 shows the face after the first operation,

FIGURE 1.

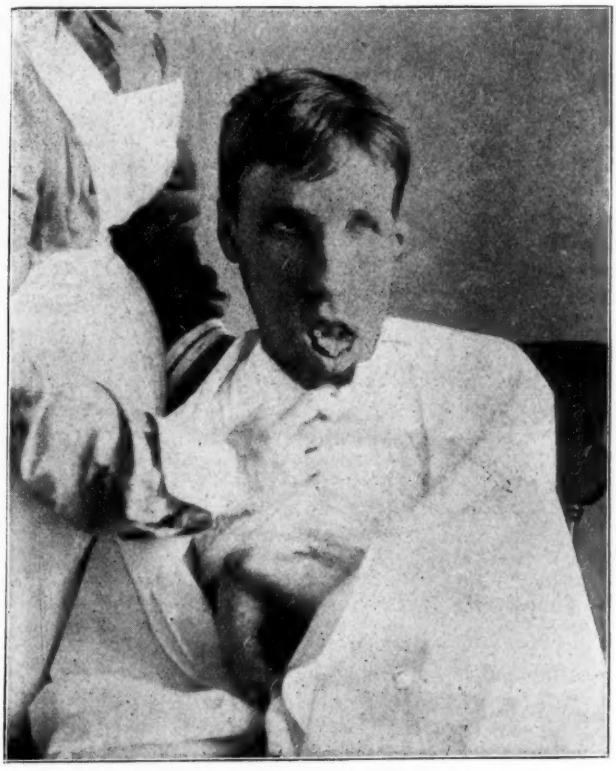

FIGURE 2.

with the mouth closed as tightly as was then possible. Only sterilized water and hydrogen dioxid were used in the care of this mouth; and the fact that notwithstanding exposure to infection, by reason of carious and

otherwise diseased teeth in the mouth, the parts united and uncovered portions of the bone surface became completely covered with healthy tissue in two weeks after the operation, would seem to prove that they were

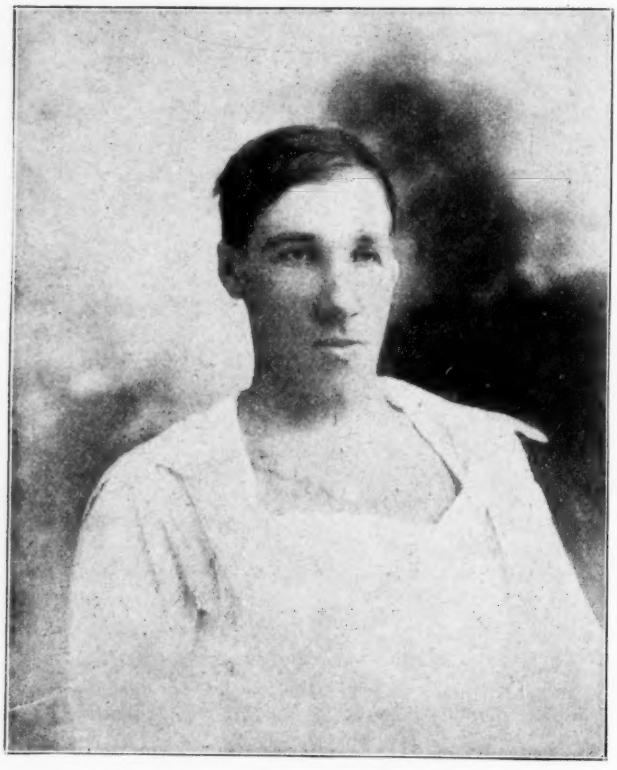

FIGURE 3.

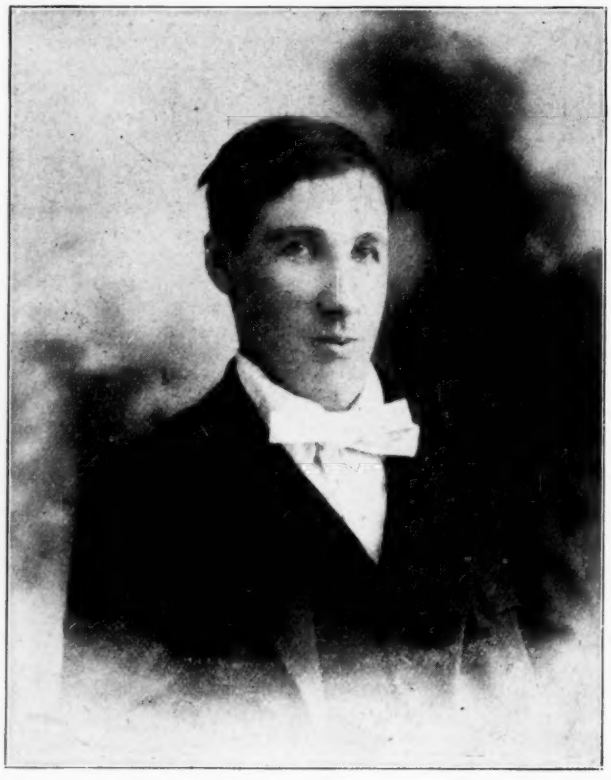

FIGURE 4.

quite sufficient for all purposes; in fact, it is believed that a better result was obtained than would have been had more active tissue-destroying antiseptics been applied. The insertion of a bridge containing the lost teeth, attached by crowns on each side of the jaw, restored the usefulness of the arch and a pleasing appearance to the mouth. As usually happens when the surgical engine is used, there was very little hemorrhage and the hydrogen dioxid was quite sufficient to control such as was apparent.

Figure 3 shows the size of the flap on the breast and neck, and the appearance of the face without any artificial assistance in the way of dress.

Figure 4 is the altered condition in which the patient was discharged, having become at last human in appearance.

HYGIENE OF PUBLIC SCHOOLS.*

BY C. F. ULRICH, A.M., M.D.

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The truth of the old adage, *Mens sana in corpore sano,* has been established by the experience of centuries. It has been observed, and the fact has impressed itself on the mind of thinking men and women that, no matter what might be the native talent and the careful education of an individual, if the bodily health is neglected, or is bad from the first, the intellectual development does not come up to the expectations of the fond parents and the admiring relatives and friends. The sickly body, the failing physical strength, the general debility hold back the native talent, the brilliant genius, and prevent the development of what bade fair to become a giant intellect; dwarfing it by physical deficiency and the consequent want of energy. The youth of genius, who would soar high above his fellows, making himself a name, and writing that name high up in the temple of fame, is often rendered weak, deficient in energy, devoid of ambition, his talents wasted, his brilliancy dimmed by the want of physical health, which is essential, not only to the growth of the body, but to the proper development of the intellectual faculties.

The question that presents itself to us is: How shall we go on cultivating the intellect without interference from failing health and want of physical force? It is by adopting the principle contained in the sentence at the beginning of this article, that a sound, healthy body, with all its functions in good working order is essential to the development and maintenance of a healthy, vigorous and far-reaching mind. One must nourish and strengthen the body, which constitutes the machinery by the aid of which the mind does its work.

A child, from its birth to the beginning of its school days, lives under the supervision of its parents or guardians. If they are intelligent, well educated and careful observers, they will bring the child up in such a manner that body and mind are equally developed, because they understand the close relation existing between the two, and their mutual interdependence. If they are ignorant or careless, they allow their children to grow up just as it happens. If there is an unhealthy tendency it is not restrained or checked, but is permitted to go on, aided by unsanitary surroundings, until the constitution is weakened. Unfortunately the latter class of parents is in the majority, since even the intelligent parents are frequently careless; their minds being occupied with a great diversity of affairs, which causes them to neglect their children. Now these children, thus variously endowed by Nature, and brought up, or allowed to come up, by their parents, arrive at the age for school and are entered as pupils in the public school. The main object

*Presented to the Section on State Medicine, at the Fiftieth Annual Meeting of the American Medical Association, held at Columbus, Ohio, June 6-9, 1899.

of these schools is to cultivate the intellect and to store the mind with useful knowledge, and qualify the child to enter a sphere of activity that will enable him not only to enjoy life himself, but to add his contribution to the advance of civilization and to the sum of human happiness.

In order that this education may be complete it is necessary that the physical welfare of the pupils should be as carefully attended to as the training of the mind. Much can be done in this direction by paying close attention to hygienic laws in the construction of school-houses; the extent and convenience of the playground; the hours of confinement in the school-house; the recesses and intermissions, etc.

Thirty-six years' connection with schools, as pupil, teacher and school commissioner, has given me some insight into these questions, and will, I hope, enable me to contribute my mite to their elucidation. The construction and arrangement of the school-house occupies a very important place in the list of items necessary to aid in preserving and promoting the health and physical well-being of the pupils. The house should possess three qualities which are absolutely essential to the comfort and healthfulness of the inmates, teachers and pupils.

It should be roomy, airy and well lighted. Crowded school-rooms are always unhealthy. The confined air, the want of space in which to move about, the cheerless and uncomfortable aspect of an overcrowded room, always exercise an unfavorable influence on the health of children. But one of the worst effects of a small room is the under size and the crowded condition of the seats and desks. Although there is an immense improvement in that particular since the early days when I was engaged in teaching, there is still much room for further improvement. During my membership in the board of education I visited the schools frequently, and discovered that nearly all the seats were too small, and the aisles between the rows of desks were too narrow. It would greatly disturb the order of the school to have the children jump up, stretch their limbs, and run about the room. Yet, to sit for a long time, an hour or more, in those little, cramped seats, without an opportunity to change their position and bring another set of muscles into action, works very seriously on the muscles and nerves, and, through them, on the entire system. It makes the children discontented with school life, negligent of their studies and anxious to get out where they have free play for all their bodily functions. If the seats were roomy the children could stretch their limbs and change their position without disturbing their neighbors or interfering with their own work; or leaving their seats and returning to them, either for recitation, for taking a little turn around the room, or for going out and coming in, could be done with as much ease and facility as though they were out on the campus, going through some of their games. These movements would have to be made systematically, by direction of the teacher, otherwise confusion would be the result.

The next thing is that the room should be well ventilated. The old-fashioned ventilation, of open windows, will do where nothing else is possible; but it causes draughts and other inequalities of the air-supply, which occasion catarrhal and bronchial complaints, and interfere with the health of the pupils. A sufficient supply of pure air is essential to health, as every one who has the least smattering of physiology and hygiene, which should be taught thoroughly in every school, must know. Therefore, in the construction of modern school-houses, some system of ventilation should be introduced which gives an equable supply of fresh air to every room in the building without creating unpleasant draughts. When the weather is suitable, the open window can be added to give a more abundant supply of the life-giving fluid. Care should be taken to open the windows to the full extent, since a small opening is sure to create a draught. This must be regulated by the teacher, who is expected to be thoroughly posted in such matters.

Light is the next essential to health and well-being, and should be supplied in sufficient quantities. It is well known that plants deprived of light are colorless, without vitality and strength, and die prematurely. The same is true of animals, and those people who spend most of their time in dark rooms are like house or cellar plants: delicate, weakly and short-lived. But the light in the school-room should be so regulated as not to impinge directly on the eyes, since that would injure the eyesight and greatly interfere with reading and writing. The light should enter the room in the rear of the pupil, and the side light on the left. In this way the book and paper would be illuminated, and the eye would only be struck by reflected light.

Water is another essential to human life; and this should be supplied in abundance, and of the greatest possible purity, in every school-house. Not ice water, as is so much in vogue in this country; but good, pure, and moderately cool water. The children should be encouraged to drink frequently, in moderate quantities, and slowly. Water is better than any other beverage; it cools, nourishes and stimulates. It revives the overworked body; recuperates the worn out power and refreshes the exhausted nerves.

The extent, commodiousness and arrangement of the campus or play-ground occupies a very high rank in the hygiene of schools. This is very often deficient in cities, on account of the difficulty of obtaining ground. The site of the school-house should be on high ground, removed as far as possible from the smoke of factories; sufficiently extensive to give the children room to run, leap and play to their heart's content. If the funds are limited, it is better to spend more for extensive grounds than to waste so much for external, architectural ornamentation. There seems to be a mania in our time for erecting beautiful and ornate school buildings. This is all very well, provided it is not done at the expense of comfort, convenience and health of the pupil. The hours of confinement constitute another very important question in school hygiene. A child, if healthy and left to itself, is in constant motion. This favors free circulation of the blood, thereby promoting the growth of the muscles and all the organs of the body, developing all the functions of body and mind. The children must remain in their seats long enough to learn their lessons and receive instructions from their teachers; but the time should be short, adapted to the age of the pupil, a little recess of a few minutes being allowed, say every half hour for the smallest ones, and at longer intervals for the larger ones. These recesses can be graded by the teachers, and conducted in such a manner as to cause the least possible disturbance to the rest of the school. This could, with little practice, be reduced to a perfect system, and would constitute by no means the least important part of the management of the school.

Prophylactic measures against contagious and infectious diseases form one of the most important items of school hygiene; for if diseases of that class obtain a foothold in the school, they will spread like wild fire through the community. Vaccination as a prevention

against smallpox should be insisted on, notwithstanding the carping of a small minority who have constituted themselves an antivaccination society. The experience of the medical fraternity is decidedly on the side of vaccination. The infectious diseases: diphtheria, measles, scarlatina, rubeola, mumps, whooping-cough, etc., should not be permitted to enter the school, and eternal vigilance should be exercised by the principal and teachers to prevent their admission. If any suspicious symptoms are discovered, the pupil should be sent home at once, and the parents required to consult a physician. Many epidemics could be modified, or prevented, by this.

The fact that bodily health is essential to a proper development of the mental faculties is doubted by no one, and this is being more thoroughly appreciated by all except those who have gone through life with closed eyes and ears. Investigation will doubtless give rise to many improvements in our system of conducting public schools. We can not take too much to heart the intimate connection of the body and mind; the impossibility of developing or improving the one without having the other to advance *pari passu;* the two mutually supporting and strengthening each other. Do not accuse me of materialism when I speak of the complete interdependence of body and mind. I would not assert that the mind is only a finer part of the body, because it can not grow, yes, not even manifest its existence, without the body.

The human body is the machinery that enables the mind to accomplish so many wonders at which the world stands amazed. If you do not keep that machinery in order, by promoting bodily health and developing physical force, the mind will be powerless and will be as though it had no existence.

Thus it becomes plain that, in the public schools, which are established for the development of the intellect, bringing it up to a higher grade of perfection, and enabling it to grasp the deep and momentous questions that are presented to us in these modern times, it is essential that the intricate and complicated body should be kept in first-class order. This object can be promoted by close attention to hygiene in the schools; not only in the few points I have suggested in this brief paper; but in everything that may contribute to the health and well-being of the body, as well as the training and educating of the intellect. For this purpose, intelligent and broad-minded men should be selected for the board of education. Men of a high order of intellect, men who have received a training not only in classics, science and general literature, but who are also well up in physiology and hygiene, should be appointed as superintendents and principals of public schools. The teachers should not only possess skill and tact in governing, but should be well versed in the knowledge that enables them to watch over and guard the health of the pupils. Above all, they should be healthy themselves, in order that they may have perfect control over their own minds, as well as that of the children. When you have such school boards, such superintendents, principals and teachers, and when you have schooled yourselves to the point of keeping such capable and worthy men and women in their positions without regard to political changes, you will be able to say: "We have a school system that will stand the test;" and you will bring up a race of people that will go on improving until the Utopian dreams of the speculative philosopher and the poet are more than realized.

718 Main Street.

INSANITY AND THE TURKISH BATH.

BY CHARLES H. SHEPARD, M.D.

BROOKLYN, N. Y.

Centuries of neglect and mismanagement have emphasized the fact that insanity is an affliction both singular and terrible, and at the same time a reproach to society, but modern science has proved that the early stages of the disease are as tractable as are those of other diseases, and we are not without hope in the more advanced stages.

While the increase of insanity may be due to heredity, and the strain of modern civilization on weak brains is a most potent factor, certainly the enormous use of narcotics in the shape of tea, coffee, tobacco, and alcohol, not to mention the indiscriminate use of other drugs, is responsible for 75 per cent. of this disease.

In ordinary disease the physician can derive much aid and information from the patient, but with insanity he is more frequently obliged to draw his deductions entirely from existing external conditions, and rely on general principles for the correction of the morbid action. For this purpose constitutional treatment is not only safe but most efficacious. It is also of great advantage to regulate the diet that the nervous forces shall not be further drawn upon to dispose of unnecessary aliment. Out-door life, including available exercise, ought to be considered a necessity, in order that a sufficiency of oxygen may be imbibed to vitalize the blood in its circulating and renovating course. Not least in the list of constitutional agencies is that of baths, and pre-eminent among all baths is the hot-air, otherwise called the Turkish bath.

As insanity is characterized by abnormal mental action and condition, it follows that there must necessarily be more or less congestion of the brain substance. To change this condition would seem to be the first requisite. If the blood is loaded with impurities, it necessarily affects the nourishment of the brain. If we can call the blood in greater force to the extremities and surface of the body, it is but reasonable to suppose that thereby an overcrowded brain may be relieved. How much more so when we can at the same time purify this circulating fluid. There is no such thing as isolation in physiology. Perfect work is united work, and the good influences of the Turkish bath, or any other treatment, can never be confined to one organ or one part of the body.

It is claimed by good authority that it is the diseased condition of the blood, acting on the brain in the same way that alcohol does, which causes the morbid ideas of lunacy, and accordingly it is readily shown that no remedy for lunacy exists which is at all comparable to the bath, owing to its purifying action on the blood.

There are two peculiarities of insanity, an inertness of the skin, and a peculiar odor, that is due to the presence of an abnormal amount of chemical abomination called fatty acids, which the bath quickly remedies. According to Dr. Thudicum, the peculiar fetor attending this class of cases is owing to a crystalline deposit around the mouths of the sweat-glands, which becomes decomposed, producing carbonate of ammonia, in combination with volatile acid. Healthy fresh sweat, from a clean skin, has a most agreeable odor, or none at all.

It is generally acknowledged that there is no specific for insanity, as it is a disease depending on and associated with various functional disorders, especially with perverted nutrition of the organ of the mind. Experi-

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ence has shown that if we bring harmony to the various functions of the body, the mind quickly regains its lost balance. The soothing, quieting effect of the bath needs to be personally tested to be fully appreciated.

The modern Turkish bath is simply the scientific application of heat to the body through the skin, as a remedial agent, and by it we have a most efficient control over organic diseases. Its processes are simple, and consist of several stages, whereby the patient is gradually brought to a condition of profuse sweating, and while in that stage well manipulated, and then the entire exterior thoroughly washed. Cleanliness can go no farther. Afterward, by gradual stages, the patient is brought back to his ordinary condition, but with the senses quickened and the tone and vigor of the body in every way improved. No violence has been offered to any sense whatever; on the contrary, the changes are so gentle and pleasant as to make the whole process seem more like the development of a beautiful flower.

In the first place the Turkish bath purifies the external body in a more perfect manner than is possible by any other process. In the next place it regenerates the blood by bringing it more completely to the surface, and there unloading its purities. Then again, by this very process it equalizes the circulation, and by quickening its action in every organ of the body, it renders more perfect each and every function, whether of the secretions or the excretions, while at the same time it is an exceedingly enjoyable luxury.

We know very well, when there is a fever to deal with, that the crisis is passed when the sweating stage is reached. With heat applied to the surface of the body, we can bring on that stage at once. If the system is loaded with poison of any kind, whether it be of rheumatism, malaria, or other virus, the first thing in order is to eliminate that poison from the body, and no way has yet been found at all comparable to the heat-cure as found in the Turkish bath. The heat produces a perfect action of the skin. If the skin is not at all times in order, there is danger of poisoning one's self by the non-removal of the disintegrated tissues that are being generated every moment.

If there be a congestion in any part of the body, whether it be in the arm, the foot, the liver, the lungs or the bowels, the action of heat is to relax the tissues of that special part and thus permit the circulation to assume its natural course, and when once a perfect circulation is established in the part, the congestion is quickly dissipated. The substance that was obstructing the circulation is passed on to be eliminated through the natural channels of the body. What is true of a part is true of the whole.

The action of heat on the blood is more than salutary. It might be imagined that the temperature of the body would be much increased thereby; such, however, is not the fact. The uniform standard of health, or blood heat, is 98 F., maintained in all conditions of weather. Necessarily in a low temperature the external vital changes are slowly carried on. But when under the influence of a high temperature, the action of waste and repair is more active, exhalation and evaporation secure the equal temperature of the blood, and it is from this adaptability of the body to sustain high artificial temperatures that the bath produces its marvelous sanitary and curative results. When under its influence the pores of the skin are thoroughly opened and the circulation perfected, then we have an unloading of all useless material that would otherwise remain to clog some organ or function. The child that was covered with gold leaf during the French Revolution, to represent the Golden Age, quickly died.

By the action of the bath we produce the results sought to be obtained by drugs; that is to say, it removes the symptoms for which they are administered, whether the drug be a cathartic, a diuretic, a tonic, a detersive or a narcotic, without any of the unpleasant sequelæ that too often follow their administration. The bath will bring sleep to one suffering from insomnia, but will not, like opium, make the healthy man drowsy. Furthermore, when a patient has recourse to the bath for any special disease, he is not only relieved of that trouble, but his whole system is placed in an improved condition. In applying the bath to man in his normal state of mind and body, only the most beneficial results have been produced. Still more so will it apply to man in an abnormal condition.

But little has yet been accomplished in the way of placing Turkish baths in the asylums of this country. Much, however, has been done in Great Britain and Ireland. Dr. Powers, superintendent of the lunatic asylum at Cork, Ireland, reports that by the use of the Turkish bath the cures rose from 59 to 76 per cent. After a few applications the patients like the treatment and ask for it. The deaths have diminished one-half. Thirty idiots have been so improved as to enjoy their lives and be made useful, and many persons before pronounced incurable, have recovered and been restored to their friends. Dr. Powers' extensive experience convinced him that the bath is a safe and powerful agent in the treatment of the insane. He further states: "I have never seen any ill effects from the bath, except a little nausea, and a slight fainting in a few instances, but after a bath or two those effects disappeared."

Dr. Fitzgerald, resident medical superintendent of the Limerick District Lunatic Asylum, said: "I am happy to have it in my power to record my opinion as to the favorable results produced by the bath."

Dr. Lockhart Robertson, medical superintendent of the Hayward Heath Lunatic Asylum, says: "There is no specific for the cure of insanity. It is a disease depending on and associated with various functional disorders, especially with perverted nutrition of the organ of the mind. The indications are to restore the balance of the circulation, and thus regulate the secretions and the supply of blood to the brain, and restore a healthy action to all the functions, including the brain. This is secured by its soothing action upon the nervous system, and the relief it affords to internal congestion by determining the blood to the surface. I also notice a specific power of the bath to remove the noxious secretions of the skin, so frequent with the insane, and which refuse to yield to ordinary ablutions." He relates a case that had remained in the asylum three months under the ordinary treatment of such cases, and had gradually grown worse, instead of improving, but in six weeks after commencing the bath treatment the patient was at work at his trade, and in six months he was discharged, sound in mind and body, and able to earn a comfortable living.

Some years ago the writer visited the large asylum at Colney Hatch, England, where there were accommodations for some two thousand patients. Here they had erected a small, separate building, expressly for a Turkish bath, and the attending physician spoke in very high terms of the success they were having with the bath treatment of their violent patients. The medical superintendent publicly stated that the bath had been an unqualified success.

In a report of the Newcastle Infirmary, the saving of

drugs is particularly insisted on as one of the benefits obtained by the introduction of the Turkish bath, and it adds: "The bath became a species of elysium, where ache and pain vanished as if by magic." "I say," said one of the patients, when taking a bath, "this bath is good for everybody." When asked, Why? he replied: "When I was working in the fields my sweat rolled down from me like water: it had no nasty smell nor disagreeable taste. Now, sir, my perspiration is thick and nasty like oil. It has a bad smell and a worse taste. When the cook puts a pot on the fire with a piece of meat or vegetables to boil, doesn't the fire throw the impurities to the top? and doesn't she take a spoon and skim them off?" He was asked how long he had been at the institution. "Nine years!" was the reply, and he was what was called a taciturn lunatic. For six years previously he had not exchanged a single word with his fellowmen, and he was considered incurable, but after a short course of treatment he was discharged cured, and has remained out of the asylum since, a comfort to society and to his fellows.

Dr. Blumer, of the Utica State Hospital (N. Y.), asserts as the result of an experiment in placing insane patients on a farm, where they could get the benefit of out-door air and exercise, that the improvement in their physical and mental condition exceeded the most sanguine expectations. The wonderful success of the Gheel system in Belgium, which has been in operation over five hundred years, and claims to cure 60 per cent. of the patients, is based on practically the same lines. These results are from the action of simple natural agencies, quickening the recuperative functions of the body. It can easily be seen that by adding a more scientific and direct application of those principles through the agency of hot air, we can produce a quicker and four-fold greater improvement.

Dr. Barter, who introduced the bath in Ireland, and who was very active in extending its benefits to the asylums and institutions of his own land, on a public occasion said: "The bath is a luxury free from vice, and may be taken daily with increasing pleasure and benefit in health and disease. Its mission is to suffering humanity, its objects are, the prolongation of life, the increase of human happiness, and the mitigation of human misery."

It was well said by Walter Savage Landor: "This is the grandest matter of modern times, because even the cleansing of the mind from error is inferior to the purification of the body itself, for unless the body is well conditioned, the mind never can be so."

The salutary effect of the bath is a matter of plain evidence. It is an agent at once simple and powerful, agreeable and economical, fully tested by experience, as incomparable in relieving various phases of the most terrible disease with which humanity can be afflicted, and it needs only a full recognition of these facts to make it available to thousands of sufferers throughout the country.

81 Columbia Heights.

Therapeutics.

Gelato-Glycerin Bougies in Earache.

Richards (*Laryngoscope; Practitioner*) states that further experience has convinced him more than ever of the value of gelato-glycerin bougies in an early stage of acute otitis media and in acute otitis externa. They can be inserted in the ear without difficulty by simply washing off the lycopodium powder with which they are covered; they are then very slippery, and, with the affected ear uppermost, easily slip down into the canal. Here the bougie soon dissolves, the anodyne is brought directly into contact with the inflamed surfaces, and the pain is relieved. Besides being a medium for the exhibition of other remedies, the glycerin is of itself distinctly curative, in that it tends to draw out more serum from within and lessen the tension. This favors absorption, and a paracentesis may be prevented. After insertion, the ear should be stoppered with absorbent cotton or gauze, and a lightly filled hot-water bottle placed at the side of, or over, the ear. Cases which have passed an early stage are, of course, beyond relief with the remedy, and demand treatment appropriate to the condition, whether paracentesis or other. Many a case of acute earache in children will, if promptly treated in this manner, at once subside without going on to severe inflammation. The following formula is recommended:

℞. Acidi carbolici ..... m. vii
Fluid ext. opii ..... m. vi
Cocainæ ..... gr. iii
Atropinæ sulphatis ..... gr. iii
Aquæ ..... m. lii
Gelatin ..... gr. xviii
Glycerini ..... ℥ii and gr. xxxviii

M. Ft. bougies xlii.

After making they should be covered with lycopodium, and dispensed in a bottle, as they are hygroscopic. They should be no larger than will readily slip in the external canal. The size made in a urethral bougie-mould has proved satisfactory.

Prurigo.

℞. Olei morrhuæ ..... ℥vi
Olei amygdalæ amaræ ..... m. iii
Acaciæ ..... ℥i
Extracti pancreati ..... ℥ii
Liquoris calcis, q. s., ad ..... ℥xvi

M. Fiat emulsum. Sig. One to two teaspoonfuls two hours after meals.

Enteralgia.

℞. Spiritus ammoniæ aromatici ..... ℥i
Spiritus chloroformi ..... ℥i
Spiritus camphoræ ..... ℥ii
Tincturæ hyoscyami ..... ℥iv
Ext. cannabis indicæ fluidi ..... ℥i
Tincturæ cardamomi comp., q. s., ad ..... ℥vi

M. Sig. Two teaspoonfuls in water every hour or two until pain is allayed.

In cases of enteralgia associated with hysteria, the following is beneficial:

℞. Liquoris potassii arsenitis ..... ℥ss
Tinct. belladonnæ fol. ..... ℥ii
Potassii bromidi ..... ℥v
Syrupi ..... ℥iv
Aquæ, q. s., ad ..... ℥viii

M. Sig. Tablespoonful three times a day, two hours after meals.

Orchitis.

℞. Iodini ..... gr. ii
Potassi iodidi ..... ℥i
Aquæ destil ..... fl℥iv

M. Apply with camel's hair brush as soon as acute symptoms have subsided.—*Niemeyer: New Eng. Med. Monthly.*

Chronic Cystitis.

℞. Guaiacol ..... gr. lxxv
Iodoformi ..... ℥i
Olei Olivæ, sterilized ..... fl℥iii

M. Sig. For injection into the bladder.—*North American Practitioner.*

New Method of Bromid Medication in Epilepsy.

Many patients are very susceptible to large doses of bromids, or even comparatively small doses continued over a long period of time. This unfortunate state is especially seen in the proper treatment of epilepsy by bromids. How to be able to give the drug in sufficient doses to gain the desired result and not poison the patient is an ever-pressing problem to the physician.

Toulouse (*Revue de Psychiatrie*, January, 1900) appears to have put forth a very ingenious and practical plan to avoid giving enormous doses of bromids, and yet get the desired sedation in epilepsy. The conclusions of the experiments made by Richet and himself were that the lessening of common salt in the diet of epileptics ought to raise the therapeutic potency

of a given amount of bromids. The rationale for this experiment rests on the fact that bromids may be made to replace chlorids in the organic cells of the body. Toulouse reduced the average 14 gm. of sodium chlorid, which his patients were taking, to 2 gm., which he found to be the smallest amount compatible with health. Toulouse's diet to reduce the salt to the minimum is as follows:

Bread (no salt added), 550 gm	.027
Meat, 280 gm	.684
Milk, 125 gm	.133
One egg, 35 gm	.171
	1.015

By allowing fresh beans or peas, and fruit in moderation, the salt was brought up to 2 gm.

A similar diet arranged in four meals is as follows:

7 a.m. Milk, .25 liters.
11 a.m. Two cakes made with eggs; farina, milk and sugar, coffee.
3 p.m. Porridge made with farina; sugar, boiling milk, etc.
5:30 p.m. Bouillon unsalted; boiled beef unsalted; potatoes; no wine.

Twenty confirmed idiopathic epileptics with considerable mental enfeeblement were treated by this plan. The daily dietary given as above proved acceptable to the patients. The 4 gm. of bromid of sodium which these patients had been taking was reduced to 2 gm. in most cases. The results were strikingly beneficial. For example, one patient who had attacks every five days went 184 days without a seizure; in all the diminution of attacks amounted to 92 per cent. Those patients who used no bromids at all showed no improvement, thus showing the diet was merely an adjuvant to the bromid treatment. The experiment proved to the authors that the surplus salt in the economy will, from its chemical similarity, inhibit the action of the bromids.

None of the patients recovered, which, from the nature of the cases could hardly be expected. The economy of extensive bromid medication by this method is obvious. Then too, there is a possibility of obtaining equally good results in the use of bromids in other diseases necessitating long-continued sedation. These two points render Toulouse's and Richet's experiments of great value.

Neurasthenia.

The following prescriptions have been recommended for the various forms of neurasthenia:

SEXUAL NEURASTHENIA.

℞ Zinci bromidi
Zinci valerianatis
Zinci oxidi, āā ..... gr. xv
Rosæ conserv., q. s.
M. Ft. pil. No. xx. Sig. One an hour after breakfast and dinner, and before retiring.

TONIC IN THE SAME AFFECTION.

℞ Strychninæ
Phosphori, āā ..... gr. 1/8
Ext. cannabis indicæ ..... gr. ii
Ferri carbonatis ..... gr. xx
M. Ft. pil. No. xxv. Sig. One before meals.

AS A SEDATIVE.

℞ Potassii bromidi ..... ℥ii
Ammonii bromidi ..... ℥i
Potassii bicarbonatis ..... gr. viii
Tinct. calumbæ ..... ℥i
Aquæ ..... ℥iv
M. Sig. Teaspoonful to tablespoonful night and morning.
—*Rockwell.*

℞ Cornutinæ citrat 03
Cretæ preparat 3
Gum tragacanth 6
M. Ft. pil. No. xx. Sig. Two to four pills daily.
—*Bozzolo and Mangianti.*

℞ Quininæ sulphatis ..... gr. xx
Ferri subcarbonatis (U. S. P. 1870) ..... ℥i
Strychninæ sulphatis ..... gr. ss
Extracti damianæ ..... gr. xx
Extracti cinchonæ ..... gr. xl
M. Ft. caps. No. xx. Sig. One after each meal.
—*Bedford Brown.*

NEURASTHENIC DEBILITY.

℞ Acidi phosphorici diluti ..... ℥i
Ext. cocæ fluidi ..... ℥ss
Ext. damianæ fluidi ..... ℥ss
Tinct. nucis vomicæ ..... m. x
Syrupi zingiberis ..... ℥i
Aquæ, q. s., ad ..... ℥ss
M. Ft. dosis. Sig. To be taken in water at 11 a.m. and 6 p. m.
—*Sir Andrew Clark.*

NERVE TONIC AND SEDATIVE.

℞ Quininæ valerianatis ..... gr. xl
Ferri subcarbonatis ..... gr. lxxx
Acidi arseniosi ..... gr. i
Strychninæ sulphatis ..... gr. i
Asafetidæ ..... ℥ii
Extracti sumbul ..... ℥i
M. Ft. cap. No. xlviii. Sig. One after each meal.
Or,
℞ Strychninæ arsenitis 1
Zinci phosphidi 4
Calcii iodidi
Ferri sulphatis
Saponis amygdalin anisati (Fr. Cod.), āā... 4
M. et ft. pil. No. xl. Sig. One after breakfast and dinner.
—*Dornbluth.*

℞ Tinct. kolæ
Tinct. cocæ, āā ..... ℥iss
Acidi citrici ..... gr. xv
Sodii arseniatis ..... gr. 3/4
M. Sig. Teaspoonful three times daily.

WHEN GASTRIC SYMPTOMS ARE PROMINENT.

℞ Zinci phosphidi 1
Zinci bromidi 1
Quininæ hydrobromatis 15
Ext. nucis vomicæ 15
M. Ft. pil. No. xxx. Sig. One three times a day.
℞ Ferrous lactate ..... gr. iii
Quininæ sulphatis ..... gr. i
Ext. ignatiæ ..... gr. 1/4
M. For one pill. Sig. Dose one or two before eating.
—*S. Weir Mitchell.*

FOR INSOMNIA OF NEURASTHENIA.

℞ Paraldehyde ..... gr. xxxviii
Ext. piscidiæ fluidi ..... gr. lxxv
Syr. pruni virg. ..... ℥iss
M. Sig. To be taken at once in a cup of orange-flower water.
—*Monin.*
Or,
℞ Chloralamid
Tinct. zingiberis, āā ..... ℥i
Aquæ menthæ pip ..... ℥xv
M. Sig. A tablespoonful to be taken at the time of going to bed.

NEURASTHENIC HEADACHE.

In neurasthenic headache associated with low vascular tension, caffein, either alone or in combination, gives excellent results. The following formula is particularly useful:

℞ Caffeinæ citratis ..... gr. i
Sodii bromidi ..... gr. x
Sodii bicarb ..... gr. x
Pulv. acidi tartarici ..... gr. x
M. Ft. pulv. No. 1. Sig. Take in water while effervescing.
℞ Caffeinæ citratis ..... gr. i
Ammonii salicylatis
Salol, āā ..... gr. v
M. Ft. cap. No. 1. Sig. One capsule every three to four hours.
Or,
℞ Caffeinæ puræ ..... gr. ss to gr. iss
Phenacetin ..... gr. v
M. Ft. cap. No. 1. Sig. Take with hot water, and repeat in one hour if necessary.

As a general stimulant for neurasthenic headache, especially of women, the following prescription has served well:

℞ Ammonii carb. ..... ℥iii
Tinct. sumbul ..... ℥vi
Spts. lavandulæ ..... ℥i
Elix. ammonii valerian, ad ..... ℥viii
M. Sig. Two teaspoonfuls every three hours in water.

Naturally these remedies are symptom medicines, and they suffice only for amelioration and temporary cure.

Medicolegal.

Damages for False Report of Death.—For the mental anguish and an expense of $60 caused by the gross negligence which made a dispatch, "Mother started at nine to-night," read, when delivered, "Mother died at nine to-night," the Court of Civil Appeals of Texas holds $780 not excessive, in Western Union Telegraph Company vs. Hines.

Teachers Entitled to Pay.—Where the public schools of a city are closed temporarily by the city authorities and health officers, as a measure of precaution to prevent the spread of a disease, as of smallpox, the teachers, being required to hold themselves in readiness to resume their duties as soon as the health authorities will permit, the Court of Civil Appeal of Texas holds, in Randolph vs. Sanders, that they will be entitled to recover their salaries as for services rendered.

An "Oxydonor" Decision.—In the infringement suit of the Animarium Company vs. Filloon, the United States Circuit Court, in Iowa, holds that the complainant failed to conclusively establish the validity of letters patent No. 587,237, or to show that the device known as the "Oxydonor" is in fact valuable or useful, in such sense as to justify a court of equity in granting protection thereto. But the court leaves it open to the complainant to file a petition for a rehearing in this case if the validity of the patent and usefulness of the device are properly established in other cases, of which it understands some are pending.

Duty of Employers in Extrahazardous Undertakings.—When the occupation carried on is in its nature so extrahazardous as to be dangerous to human life or health, both justice and humanity, the Court of Appeals of Maryland holds, in State vs. Lazaretto Guano Company, require that the employer should take all reasonable and needed precautions to secure safety to the employees, and make clearly known to them the inherent dangers of the service, and should especially acquaint them with such risks as are ascertainable only through a knowledge of scientific facts, which an educated man is presumed to know. A failure on the part of the employer to afford the protection due from him to the employee will render him liable for injuries occurring to the latter as a result of such failure. And some of the cases go so far as to hold that in specially hazardous occupations the employer must make and enforce reasonable rules and regulations for the conduct of the work, in order to protect the employees from the dangers of the service.

Effect on Release of Mistake as to Injuries.—A passenger injured in a railway accident was taken to an infirmary used by the company for the care and treatment of injured employees. On the following morning he was carried to the operating-room, where there were three persons, one of them the company's surgeon who was in charge of the infirmary, another, its claim agent. Their first object was apparently to obtain a release of his claim for damages. No examination of his injuries had yet been made by any physician. But now one was made of his ankle, without any other investigation. He says that he was assured that he had sustained only a slight injury to his ankle and foot, and would be well and able to resume his work in six weeks. He also says that he called the physician's attention to pains which he was suffering in his back and lower bowels, and was assured that they amounted to nothing, as one of his age was likely to have such pains. The result was that, in the afternoon, in consideration of the payment to him of some $430, the $30 being for the loss of a watch, he executed a full and complete release of all claims for damages or injuries to him as a result of the accident. Subsequently, he learned that he had suffered concussion of the spine and injury to his bowels. Under such circumstances, the Court of Civil Appeals of Texas holds, case of McCarty vs. Houston & Texas Central Railroad Company, that, while such instruments should not be lightly disturbed, relief should be granted against manifest injustice. It says that here, if any other injury was known or suspected by the physician or company's agents, they were under the strongest obligation to disclose them. And if the surgeon honestly believed that the pains in the back and the condition of the bowels were not due to the accident, and were symptoms natural to one of the man's age, then the additional injuries complained of were not a part of the consideration moving to the execution of the release. It adds that it can not be said that he should not have relied on the physician's opinion. It was not the mere casual opinion of a non-expert, but a professional opinion, receivable as evidence in a court of justice, and was given with actual knowledge that it would, at least in part, form a basis of the negotiations then pending. But the court does not think that the release should be entirely avoided, for, in so far as it discharged the railway company from liability for injuries to the foot and ankle, or any other known injury, or any injury which could be fairly held, in the light of the facts, to have been reasonably within the contemplation of the parties, the one executing it was bound. Therefore, it holds that he might retain the sum received, and sue for the part of his claim which the release was not intended to discharge.

Against Making Too Much of Life Tables.—When the Supreme Court of Pennsylvania first held life tables admissible in an action against a railway company, Mr. Chief Justice Paxton, who rendered the opinion, said: "While we are unable to see how such evidence is to be excluded, I must be allowed to express the fear that it may prove a dangerous element in this class of cases, unless the attention of juries is pointedly called to the other questions which affect it." What he merely apprehended, that court now declares, in Kerrigan vs. Pennsylvania Railroad Company, experience has demonstrated has since been realized. Courts and juries, as a rule, it goes on to state, give far more weight to this testimony than it is entitled to. They are apt to supply the place of proof of the particular life by generalization from life tables. This is going further than was intended, or than is warranted. Therefore, the court proclaims, a halt is called on the manifest tendency to give them undue weight. Here a brakeman, 22 years of age, whose right arm had been crushed, was seeking to recover damages. The judge instructed the jury that the life of a young man of this age, according to the tables, is estimated at 40 to 45 years, and that they could take that as a means of estimation of what would compensate him for his loss. The fair inference that the jury might draw from this statement was that the tables not only were some evidence of his expectancy, but that they established it. This, the supreme court holds, was error. It holds that the tables were not entitled to such weight, unless by precedent proof the plaintiff had brought himself clearly within the class of selected lives tabulated, which he had failed to do. Nor does it consider annuity tables at all admissible in a case of this character.

Not Amputation of Foot Under Policy.—The length of a man's whole left foot was 11 5/16 inches to the end of the great toe, while that of his maimed right foot was exactly 7½ inches on a line drawn through the center of the foot, and 7¾ inches if drawn in the direction of the great toe, measured on diagrams made by drawing a pencil around the two feet while he stood on a piece of paper. He contended that his whole right foot had been amputated when it was so far removed as to be useless in the performance of the natural functions of a foot, although he had left all of the heel, substantially all of the hollow of the foot, and possibly a part of what is called the "ball of the foot." But the supreme court of Michigan does not consider that he was brought within a by-law of a mutual benefit association which provided that any member receiving bodily injuries which alone should cause amputation of a limb—whole hand or foot—should receive the full amount of his policy. It holds that the natural construction of the words would be the same as though the by-law had said, "whole hand or whole foot." It further says that the injury insured against was not the amputation of a hand or foot, but a limb; and that the words in brackets, "whole hand or foot," were used as explanatory of what was meant by the word "limb," i. e., an amputation, not necessarily a whole arm or leg, at the elbow or knee, but an amputation of a limb that should include a whole hand or a whole foot. And it makes a distinction between this case, of Fuller vs. Locomotive Engineers' Mutual Life and Accident Insurance Association, and cases of insurance against the "loss of a hand or foot," for it thinks that it might well be said that a foot or hand is lost when it is so impaired as to be of no further use, and that, it adds, is as far as the authorities have gone.

Current Medical Literature.

Titles marked with an asterisk (*) are noted below.

Boston Medical and Surgical Journal, February 22.

1.—*Unity of the Acute Psychoses. Philip C. Knapp.
2.— Psychology and Heredity. Robert MacDougall.
3.—*Advisability of a More or Less General Exploration of the Abdomen When It has Been Opened for an Operation. John Homans.
4.—*Clinical Study of Heroin. James R. L. Daly.
5.— Case of Old Shoulder Dislocation. Frank E. Peckham.

New York Medical Journal, February 24.

6.—*Albuminate of Mercury (Sapodermin) in the Treatment of Parasitic and Fungoid Diseases. George J. Bucknall.
7.—*Determination of Sex at Will. J. Griffith Davis.
8.—*Studies on Internal Antisepsis. Edwin Klebs.
9.—*Treatment for Hypertrophy of the Inferior Turbinated Bone. E. Harrison Griffin.
10.— Surgery of the Superior Cervical Sympathetic Ganglion. George F. Suker.
11.— Operation for Divergent Strabismus. David Webster.
12.— Benefits of Balneotherapy in Treatment of Chronic Rheumatism and Gout. Henry H. Schroeder.
13.— Treatment of Iritis, for the General Practitioner. Norburne B. Jenkins.

Philadelphia Medical Journal, February 24.

14.— Difficulties of Medical Reporting. F. E. Wessels.
15.—*Etiology of Sydenham's Chorea: An Analysis of 100 Consecutive Cases. Joseph Collins and I. Abrahamson.
16.—*Certain Effects of Benzoic Acid on the Urine. William W. Ashhurst.
17.— Case of Successful Symphysiotomy. Joseph B. DeLee.
18.— Subhyoid Pharyngotomy for Removal of Malignant Growth of the Larynx. F. J. Lutz.
19.—*Resuscitation of Apparently Dead New-born, by Laborde's Method. Francis E. Fronczak.
20.— Interscapulothoracic Amputation. William D. Hamilton.

Medical News (N. Y.), February 24.

21.—*Notes on Plague. H. E. Deane.
22.—*Experimental Researches on Effect of Increased Barometric Pressure and of Foreign Bodies in the Pharynx, Esophagus, Trachea, and Larynx. George W. Crile.
23.—*Some of the European Sanatoria for Consumptives, and the Final Aims of Phthisiotherapy. W. Freudenthal.
24.—*Clinical Contribution to Thyroid Therapy. Charles E. Hirsh.

Medical Record (N. Y.), February 24.

25.—*Treatment of the Sliding Hernias of the Cecum and Sigmoid Flexure. Robert F. Weir.
26.—*Clinical Uses of the Sphygmograph. R. Van Santvoord.
27.— Physician as a Factor in Education. Frank Overton.
28.—*Operation for Relief of an Incarcerated Iris. George H. Bell.

Cincinnati Lancet-Clinic, February 24.

29.—*Etiology of Locomotor Ataxia. David I. Wolfstein.
30.— Ophthalmic Memoranda. David DeBeck.

Medical Review (St. Louis, Mo.), February 24.

31.— Case of Puerperal Septicemia Treated with Antistreptococcic Serum. S. J. Barker.
32.— Report of Recovery from Traumatic Tetanus. L. B. Van Camp.
33.— Some of My Mistakes. A. Herring.

Pediatrics (N. Y.), February 1.

34.—*Estimation of Leucocytes of Blood as an Aid in the Diagnosis of Children. George D. Head.
35.—*Report on Cause and Prevention of Infant Mortality. Ernest Wende.
36.— Two Cases of Infantile Hemiplegia Following Convulsions in Scarlet and Malarial Fever. E. B. Montgomery.

American Journal of Insanity (Baltimore, Md.), January.

37.— Cortical Functions and Psychology. Herbert Nichols.
38.—*Common Features in Neurasthenia and Insanity; Their Common Basis and Common Treatment. G. W. Foster.
39.— Differential Diagnosis of Paretic and Pseudoparetic States. Arthur W. Hurd.
40.— Case of Multiple Cerebrospinal Sclerosis of a Special Anatomic Form with a History of Pronounced Family Defect. Irwin H. Neff and T. Klingmann.
41.—*Colony System of Caring for the Insane. Herman Ostrander.
42.—*General Pathology of Mental Diseases. Henry J. Berkley.
43.—*Differential Count of White Blood Corpuscles in a Few Cases of General Paralysis. F. H. Jenks.
44.— What the Chronic Insane Can Accomplish under Proper Direction J. T. W. Rowe.
45.— Transitory Alienation Following Distressing Pain. Henry J. Berkley.

Railway Surgeon (Chicago), February 6.

46.— Some Points in Practical Abdominal Surgery. A. C. Bernays.

Laryngoscope (St. Louis, Mo.), February.

47.—*Principles of Stuttering (Therapeutics). R. Coen.
48.— Papillomatous Growth of the Tonsil. J. Payson Clark.
49.— Taking Cold. Frank S. Milbury.
50.— Tenotomy of the Tensor Tympani Muscle for the Relief of Deafness and Tinnitus. Wm. L. Ballenger.
51.— Three Convenient Formulæ. Richard B. Faulkner.

Physician and Surgeon (Ann Arbor and Detroit, Mich.), January.

52.—*Rigidity of Maternal Soft Parts During Labor. J. J. Mulheron.
53.—*Study of Mycosis Fungoides. Andrew P. Biddle.
54.— Widal Reaction. D. Murray Cowie.
55.— Case of Cyclops. Frank B. Walker.
56.— Tetanus, with Report of Cases. A. N. Collins.
57.— Report of Case of Septic Infection. George G. Barnett.

Journal of Nervous and Mental Diseases, February.

58.—*Study of the Lesions in a Second Case of Trauma of the Cervical Region of Spinal Cord, Simulating Syringomyelia. James H Lloyd.
59.—*Landry's Paralysis. Philip C. Knapp and John J. Thomas.
60.— Case of Hematomyelia. James H. Lloyd.
61.— Case of Tumor at Base of Brain in Pontine Region. James H Lloyd.
62.— Nervous Equivalent of Fever. Henry S. Upson.

Medical Bulletin (Philadelphia), February.

63.— Clinical Lectures: Varicella; Pemphigus. John V. Shoemaker.
64.— Oxaluria. George W. Pfromm.
65.— Endocarditis and Aortitis Due to Gonorrhea. Professor Potain.

Alienist and Neurologist (St. Louis, Mo.), January.

66.— Outline of Psychiatry in Clinical Lectures. C. Wernicke.
67.—*Samuel Henderson, Murderer. Martin W. Barr.
68.— Transitory Mental Disorder in Hemicrania. v. Krafft-Ebing.
69.—*Physiologic Common Sense and the Drinking of Alcohol. C. H. Hughes.
70.— Hungry Evil in Epileptics. Ch. Fere.
71.— Epilepsy Modified by Treatment and Environment, with Some Notes of Two Hundred Cases. Martin W. Barr.
72.— Research in Comparative Cytology of the Nervous System of the Vertebrates. Guiseppe Levi.
73.—*Legal Disabilities of Natural Children Justified Biologically and Historically. E. C. Spitzka.

International Medical Magazine (N. Y.), February.

74.— The Century of Surgery. W. Wayne Babcock.
75.— Franklinic Electricity and Methods of Application. Margaret A. Cleaves.
76.— Importance of Early Recognition and Treatment of Gonorrhea in the Female. E. E. Montgomery.
77.— Stricture of the Urethra. (*Concluded.*) J. D. Thomas.
78.— Importance of Thorough Urinary Examinations: the Needed Preparations, Apparatus, Etc. A. Robin.
79.— Diagnosis of Some Ocular Maladies, by the General Practitioner. J. A. Patterson.
80.— Symptomatology, Complications and Sequels of Gastric Ulcer. Boardman Reed.
81.— Some Practical Points in Infant Feeding. Howard S. Kinne.

Journal of Boston Society of Medical Sciences, January 16.

82.—*Variation among Pathogenic Bacteria. Theobald Smith.
83.— Gumma of the Oblongata. E. W. Taylor.
84.— Simple Method for Anaerobic Cultivation in Fluid Media. James H. Wright.

Chicago Medical Recorder, February.

85.— Preparation and Disinfection of the Patient. Christian Fenger.
86.— Disinfection of the Patient: Schleich's Ideas. E. W. Andrews.
87.— Methods of Surgical Disinfection Employed at St. Augustana Hospital, Chicago. A. J. Ochsner.
88.— Use or Disuse of Irrigating Fluids in the Abdominal Cavity. J. B. Murphy.
89.—*Ovarian Cyst Complicating Labor, with Report of Case. H. D. Peterson.
90.— Prevention of Tuberculosis. Charles J. Whalen.
91.— Amebic Dysentery. T. M. Aderhold.
92.—*Ocular Therapeutics for the General Practitioner. Albert B. Hale.
92.— Gunshot Wound of Abdomen, Followed by Operation and Recovery. Jacob Frank.
94.— Chronic Posterior Gonorrheal Urethritis. Frederick Leusman.
95.— Case of Fracture of Clavicle. Edward H. Ochsner.

Merck's Archives (N. Y.), February.

96.— Materia Medica and Vivisection. Robert Meade Smith.
97.—*Treatment of Diarrhea. J. T. Moore.
98.—*Methylene Blue in Malaria. J. W. P. Smithwick.

Medical Examiner (N. Y.), February.

99.— Life Insurance: General Plans, Reserves and Investments. Emory McClintock.
100.— Longevity. A. M. Laughton.
101.— Predisposition is Either Hereditary or Acquired to Any Constitutional Disease. Geo. W. Wells.

Archives of Pediatrics (N. Y.), February.

102.—*Study of Lesions of the Liver in Young Children. Rowland G. Freeman.
103.—*Mortality and Treatment of Acute Intussusception. Fred Kammerer
104.—*Necessary Factors in Successful Treatment of Intussusception. C. L. Gibson.
105.— Report of Two Cases of Sarcoma of the Lower Jaw. W. H. Hudson.

Journal of Eye, Ear and Throat Diseases (Baltimore, Md.), January-February.

106.— Operative Treatment of Senile Cataract: a Retrospect. Anderson Critchett.

Woman's Medical Journal (Toledo, Ohio), February.

107.— Women Nurses in the American Army. Anita N. McGee.
108.— Operating Room and Its Accessories, Adapted to Perfect Asepsis in Surgery. Anna Braunwarth.
109.— Melancholia. Elizabeth H. Trout.
110.— Additional Note on Thyroid Extract in Acute Tonsillitis. Julia S. Kapp.

Archives of Ophthalmology (N. Y.), January.

111.— Double Nasal Hemianopsia Following a Fall on the Head. Swan M. Burnett.

112.—*Tuberculosis of Conjunctiva. J. W. H. Eyre.
113.—*Successful Treatment of Three Important Cases of Diseases of the Eye by Combined Method of Hg and KI Internally and Pilocarpin Hypodermically. G. Herbert Burnham.
114.— Case of Extensive Detachment of Retina in Myopic Eye, in which Complete Recovery Followed Rest in Bed and the Administration of Pilocarpin. Samuel Theobald.
115.—*Further Contribution to Value of X-Ray in Detecting Metallic Particles in the Eye, with Remarks on Other Methods. A. B. Kibbe.
116.—*Treatment of Corneal Ulcers and Corneal Fistula by Electrolysis. Frank Cornwall.
117.— Injection of a Weak Sterile Solution of Sodium Chlorid into Collapsed Eyes. Joseph A. Andrews.
118.— Series of One Hundred Cases of Cataract Extraction. C. E. Finlay.
119.— Case of Angioma Orbitæ Fibrosum. Ernest Neese.
120.— Fibroma of Corneal Limbus in Spring Catarrh. Hans Schlub.
121.—*Twin Ganglion Cells in the Human Retina. R. Greeff.
122.— Case of Glioma Retinæ and Brain Metastases, with Autopsy and Review of Literature. F. M. Wilson and Edgar S. Thomson.
123.— Case of Congenital Irideremia. R. S. Copeland.
124.— Attempted Evulsion of Both Eyes by an Insane Patient. David Coggin.

Medical Dial (Minneapolis, Minn.), February.

125.— Remarks on Joint Diseases. Knut Hoegh.
126.— Puerperal Mania. C. K. Bartlett.

Medical Herald (St. Joseph, Mo.), February.

127.— Acute Articular Rheumatism and Pseudo-Infectious Rheumatism. A Chauffard.
128.— Some Recent Surgical Cases. Daniel Morton.
129.— Antistreptococcus Serum. Paul Paquin.
130.— Nasal Obstruction Due to Adenoids. Robert M. Lapsley.
131.— Puerperal Infection. H. S. Forgrave.
132.— Diabetes Mellitus. Wm. Hooker Vail.

Ophthalmic Record (Chicago), February.

133.—*Prolapse of Iris after Simple Cataract Extraction. Geo. C. Harlan.
134.— Blindness from Sympathetic Ophthalmitis: Restoration of Vision by Critchett's Operation. G. E. de Schweinitz.
135.— Unusual Case of Orbital Gonorrhea, Infection following Irritation from an Artificial Eye; Complicated by Septic Endocarditis; Death and Autopsy. William R. Murray.
136.—*Valuable Subjective Method of Measuring Astigmatism Edward Jackson.
137.— Eye and Ear Work in the London Hospitals. E. Oliver Belt.
138.—*Injuries to Crystalline Lens. S. Mitchell.
139.—*Some Disputed Points about the Entopic Observation of the Circulation in the Retinal Capillaries. Carl Weiland.
140.— New Portable Sterilizer for Eye Instruments. Clarence A. Veasey.

Carolina Medical Journal (Charlotte), February.

141.— Typhoid Fever at the State Normal and Industrial College in Greensboro. W. P. Beall.
142.— Remarks on the Best Operation for Removal of the Faucial Tonsils and Adenoid Vegetations in the Vault of the Pharynx. Edward F. Parker.
143.— Change of Refraction from Compound Hypermetropic Astigmatism to Compound Myopic Astigmatism—Glaucoma. L. Webster Fox.
144.— Some Practical Hints in Injuries of the Eye. Dunbar Roy.
145.— Foreign Bodies in the Air-Passages. C. A. Misenheimer.
146.— Corneal Ulcers. W. H. Wakefield.

Quarterly Journal of Inebriety (Hartford, Conn.), January.

147.—*Periodic Dipsomania and Some of Its Remote Causes. P. C. Remondino.
148.—*Alcoholism and Suicidal Impulses. W. C. Sullivan.
149.— Alcoholic Hypnotism. Arthur MacDonald.
150.— Craving for Stimulants. Harry Campbell.
151.— History of Prohibitive Legislation. Charles Macfie.
152.—*Results of Treatment in 1129 Cases of Acute Alcoholism; Death-rate 1.5 Per Cent. J. K. Bauduy.
153.—Biographic Sketch of Dr. Norman Kerr. T. D. Crothers.

Medical and Surgical Monitor (Indianapolis, Ind.), February 15.

154.—*Appendicitis: A Clinical Lecture. Joseph Eastman.
155.— Sterility and Pelvic Deformity. Joseph B. Cooke.
156.— Variola and its Treatment. Theodore A. Wagner.
157.— Breech Presentations. B. Wallace.
158.— Hemorrhage into Conjunctival Sac, Through Nasal Duct, Following Operation for Removal of Nasal Spur. Wm. F. Clevenger.
159.— Antitoxin in Diphtheria. Report of Seven Cases. Chas. R. Sowder.

Therapeutic Gazette (Philadelphia), February 15.

160.—*Relation Between Posterior Urethritis and Prostatic Abscess, and Treatment of Each. Ramon Guitéras.
161.— Some Points of Interest in Connection with Chronic Urethritis. Orville Horwitz.
162.— Treatment of Appendicitis and its Great Mortality. Mordecai Price.
163.—*Santonin in Treatment of Epilepsy. G. Frank Lydston.
164.—*New Surgical Dressing Possessing Remarkable Powers; Chloretone as an Antiseptic and Local Anesthetic: Report of Cases. T. A. Dewar.

Memphis Medical Monthly, February.

165.— Use of the Tuberculin Preparations in Treatment of Consumption. Llewellyn P. Barbour.
166.— Surgical Clinic. Battle Malone.
167.—*Vesical Calculi in Children. F. D. Smythe.
168.—*Suprapubic vs. Vaginal Hysterectomy. J. P. Runyan.
169.—*Rectal Troubles as Seen in the Negro. Frank A. Jones.
170.— Correction of Deviated Nasal Septa. Richmond McKinney.
171.— Contribution to Treatment of Chorea. H. S. Greeno.

American Medical Compend (Toledo, Ohio), February.

172.— Relation of Regular Medicine to Various Medical Sects. W. J. Gillette.
173.—*Excision of the Cervical Sympathetic Ganglia. Geo. Suker.
174.— Modern Technic in Amputatio Mammæ for Carcinoma. B. Becker.
175.— Rational Therapeutics. D. E. Bowman.
176.—*Diet in Lithemia. A. B. Conklin.

Medical Times (N. Y.), February.

177.— Observations on Some Forms of Paralysis. George I. Cutler.
178.— Treatment of Typhoid Fever. Stephen Thach.

Oklahoma Medical Journal (Guthrie), February.

179.— Mastoid Disease and Its Surgical Treatment. A. K. West.

AMERICAN.

1. **Unity of the Acute Psychoses.**—The theory advanced in Knapp's article is that in the acute psychoses we do not have a variety of different diseases, but a single affection the anatomic basis of which may be an acute degeneration of the cortical neurons, and if we adopt Wernicke's suggestion—which seems to him the most sound one—that insanity is a disease of the association system—a degeneration which causes a greater loss of function in the association neurones of the cortex than in the neurones which belong to the projection system. This affection may vary in its severity and in its clinical manifestations. It is most frequently due to some toxic process—such as alcohol, post-infectious toxins, or perhaps autotoxins—or to exhaustion—toxins of fatigue. It is often attended at the onset with some febrile disturbance; a slight rise is not uncommon in milder cases, and a marked rise is the rule in grave delirium. Under certain conditions—perhaps a marked virulence or a very large dose of poison—the symptoms are of sudden onset, with states of active delirium which may speedily cause death by exhaustion. Under ordinary conditions, states of confusion or hallucinatory delusion are produced, which may remain through the course of the disease or which may go on more or less rapidly to dementia. If the changes be not too complete and too extensive, recovery may ensue, or, in some cases, recovery with some persistent mental defect. The variation in the clinical picture is due to the varying extent and severity of the morbid changes or perhaps to a varying localization. He thinks trend of opinion during the last decade seems to be more and more in the direction of regarding the acute psychoses as one. He believes this hypothesis of the essential unity of a pathologic basis in acute degenerative change in the cortical cells is the most possible solution of the difficulty, and one that will be strengthened by further study.

3. **Abdominal Exploration.**—Homans pleads for the regular practice of abdominal exploration in laparotomy, and says that by this he has in a number of instances discovered unsuspected lesions that required attention, such as appendicitis, salpingitis, gall-stones, etc. He reports cases illustrating his position.

4. **Heroin.**—Daly has used heroin in a number of cases, and reports eight where it was employed to advantage. He thinks that it is unequaled as a sedative in coughs, and prevents the disagreeable stagnation of secretory products in the lungs, especially in tuberculosis. He considers the dose of 1-6 of a grain rather large in many cases, 1-12 being sufficient. It has a beneficial result also on respiration and its effect on night sweats is second only to that on cough. In no cases he has seen was there any effect on the temperature. It possesses many advantages over morphin, which he sums up as follows: 1. It prolongs respiration, and at the same time increases the volume of each inspiration, making it a remedy much to be desired in the treatment of cough. 2. It is not a hypnotic. 3. Absence of danger of acquiring the habit. 4. It does not weaken the respiratory apparatus. 5. It does not cause unpleasant disturbance of the stomach or intestines. 6. It can be prescribed in cases in which heart complications occur, without risk of any deleterious effect on that organ. 7. The ratio of the therapeutic to the toxic dose is considerably smaller than that of morphin.

6. **Albuminate of Mercury.**—The parasitic diseases, especially scabies, are noticed first and the treatment given. Bucknall says the principles are: The avoidance of all external irritating or injurious agents of whatever kind, of all substances which cause a roughening of the epidermis, the employment of those only which tend to soften and leave the skin in a healthy condition, the use of antiparasitic agents to

destroy the organisms causing the inflammation. He considers that these cardinal principles are all happily combined in the albuminate of mercury, which has all along been disregarded and designated "inert," because it was considered that the bichlorid of mercury, when brought in contact with fats and oils, was transformed into an insoluble albuminate, a theory which has lately been entirely exploded by English, French, and German chemists. Sapodermin is a soap in which the bichlorid of mercury is incorporated with triple refined stearin and glycerin. The bichlorid is therefore changed into an albuminate of mercury, which is highly active as an antiseptic, destructive to all forms of parasites, fungoid and bacterial growths, yet leaving the skin in a soft, velvety, and pliable condition. He considers it worthy of extensive employment. The paper concludes with several clinical cases, and the author states that he has had many others under observation, several of which have been cured, and others greatly benefited.

7. **Determination of Sex.**—The theory advanced by Davis is that the sex can be determined the following way. He first assumes a general vibratory law. In the female, during ovulation the rate of vibration is higher, rendering her the positive and ruling factor. It is logical, therefore, to conclude that the result of sexual association near the period will result in a female. Vice versa, when the rate of vibration is lower and she becomes negative, so to speak, the male element will predominate and a male will be the result.

8. **Internal Antisepsis.**—Klebs' article is concluded in this issue. He believes that he shows that antinosin and nosophen insure the normal healing process in non-infected wounds. In this respect he lays special stress on the prompt development of leucocytosis and eosinophilia. He says the use of antinosin in general septic infections seems to weaken the action of the micro-organisms introduced, and to promote the vital functions. Its use is also unattended by the danger so often noticed in connection with the employment of other iodin preparations of no value in internal sepsis. He shows, by temperature-curves of the infected animal treated with antinosin the more continuous typical fever and never the enormous variations that occur without its use. He thinks that this continuous regulation of temperature is preferable to the acute depressions which are often disastrous in the course of the usual antipyretic treatment, and also claims that its use in several cases has been clinically demonstrated to him. For external as well as internal use he uses antinosin, 1 to 1000, in the mouth, pharynx and nose; internally he gives from three to six tablespoonfuls of the same strength solution.

9. **Hypertrophy of Inferior Turbinated Bone.**—The operation described by Griffin, for the occluded nasal passages due to the hypertrophy of the inferior turbinated bone, consists in sawing off this bone from below and upward and inward toward the septum, after thorough cocainization of the parts previous to operation, and with 10 grains of quinin and 20 grains of bromid of potash at bedtime for a week or two prior to the operation to prevent secondary hemorrhage. He uses absorbent cotton with more success than strips of iodoform gauze, and allows it to remain in the nose twenty-four hours. He then removes the forward portion of it, and if this is followed by hemorrhage, he allows the rest of it to remain until the next day. He follows this with a wash with Seiler tablets or Dobell's solution, and orders the patient to cleanse the nose with it morning and night for two weeks. Also a little vaselin snuffed up the nose is agreeable. It takes from a month to six weeks for the parts to completely heal, when a patency of the nose is established that will not close with every change in the weather. Atrophic rhinitis does not follow the operation. He has operated in over 1000 cases, and has never seen one where the patient was not greatly relieved. Five cases are here reported.

15. **Etiology of Chorea.**—From an analysis of 100 consecutive cases, Collins and Abrahamson find that the school period covers 77 per cent. of all cases, the first ten years of life 50 per cent. Females seem more liable than males, the ratio about 2 to 3. Twenty-seven per cent. of the patients were Jews, which is in accordance with the known fact of the liability of this race to nervous disorders. The maximum number occur in July and in the summer months; next, in the spring. They did not find any effects from hygrometric conditions. Their findings as to heredity in all cases are rather less than those of some other authors. Of these 100 cases, 22 per cent. were neuropathic, 19 rheumatic and 14 choreic. The authors think that rheumatism has a decided and definite relationship with chorea, which possibly may be considered as a metarheumatic manifestation. It is highly improbable that it is an infectious disease in the true sense of the term. In none of these cases did there seem to be any relationship with the eruptive diseases of children. The exciting causes are usually psychic trauma in various forms and bodily exhaustion. It rarely follows gastrointestinal irritation, eye strain, reflex excitation, etc. Relapses are frequent: 45 of the 100 had had more than one attack. Chorea gravidarum is mentioned and the fact that chorea is much more serious in adults than in children. As regards psychic symptoms, they found mental apathy in 23, mental excitability and terrorized states in 27, mental torpor in 4, and mild dementia in 3 patients. These tend to confirm their conviction that chorea is not unfrequently accompanied by noteworthy mental deterioration.

16. **Benzoic Acids and Urine.**—Ashhurst reports experiments on dogs with sodium benzoate, and also on himself. He says, to sum up, the evident effects on the urine, of the exhibition of benzoic acid are: 1. An inconstant diuretic action, accompanied by a slight diminution of the acidity of the urine. 2. A retardation or absolute prevention of the occurrence of the alkaline fermentation. 3. An action in Nature germicidal or inhibitory to the growth of certain micro-organisms, either within the bladder or when introduced into the urine after voiding, these susceptible organisms including especially those which tend to produce the alkaline fermentation, but which develop in the urine while it is still acid.

19.—This paper previously appeared elsewhere, and was abstracted in THE JOURNAL of January 13, ¶ 106, p. 101.

21. **Notes on Plague.**—Deane gives the history of plague and notices the Yersin serum and other methods of treatment. He does not believe in the importance of infection by rats, and the usual methods of drug treatment are, he thinks, generally failures. The Yersin treatment seems to have some good results, but Deane protests against the practice of having control cases in experiments with these methods—every patient should be given an equal chance for his life. The article is to be continued further, and his own treatment with snake venom will be reported.

22. **Foreign Bodies in the Pharynx.**—Crile's article deals with the experiments and methods as regards foreign bodies in the pharynx. esophagus, trachea and larynx. This installment is confined to the preliminary remarks, physiologic principles discussed and the technique of his experiments.

23. **Tuberculous Sanatoria.**—After describing some of the European institutions and their methods, Freudenthal urges the importance of rational muscular work for patients with incipient tuberculosis, always under the supervision of physicians. He thinks that the sanatoria for the rich and the poor should be under the same financial management so that the resources of one could help the other, and that arrangements should be made by corporations, and lodges and benefit societies, to send patients to a milder climate where open air employment can be carried on at all seasons of the year.

24. **Thyroid and Therapy.**—Hirsh points out the advantage of iodothyrin over simple thyroid extract and reports cases in which he has used it with good results.

25. **Sliding Hernias of the Sigmoid.**—The condition described and discussed by Weir includes this class of hernias, where there is defective investment of the cecum or ascending colon, by peritoneum, so that the hernia has only a partial sac. He thinks this rather frequent, occurring in 8 cases out of 20 in which the ascending and descending colon alone or accompanied by the cecum and sigmoid was involved. Slip hernias are more common in the left side and in males in advanced or middle life. It is difficult to determine their nature before the required surgical intervention. They are reducible in the early period and soon become irreducible and are usually scrotal. It is wiser in irreducible hernia of the left side to make the incision into the sac wall to the inner side

of the scrotal swelling, and not to carry it too low down As regards treatment, there is little in the text-books or in special works, notwithstanding the difficulty and dangers involved in the reduction. The author has recently attempted freeing the bowel from its bed, and the covering of the raw surface with peritoneum taken from the sac. This was accomplished by dissecting it up on one side of the bowel, at the top, on a level with or a little above the internal ring, and at the bottom to a short distance below the bowel. The latter is then loosened by peeling off with the finger or, if tightly fastened, by cutting or snipping, with scissors as widely as possible from it until it is released up to or above the internal ring, which is to be opened widely by retractors, or even enlarged by cutting if required to obtain a good view. Then the loosened peritoneum is turned backward and sutured behind the gut as far as practicable. The peritoneal flap should be an ample one, so as to permit, to a satisfactory degree, the unfolding of the bowel loop and thus avoid kinking, which, however, is rarely of importance in the large intestine. The ring is afterward carefully sewed together after the newly covered bowel is reduced, and if the patient has consented to the justifiable proposition to sacrifice the testis on this side, a radical cure may be reasonably looked for. He hopes that the peritoneal covering thus aids in preventing recurrence as the direction of further slipping is turned away more from the hernial outlet. In two cases in which he has tried this there was no difficulty in operation, and there has been no recurrence. He reports ten cases in detail.

26. **Sphygmograph.**—Van Santvoord's article is illustrated by numerous reproductions of sphygmographic tracings.

28. **Incarcerated Iris.**—Ball reports the operation which he has never seen fail for the relief of incarcerated iris. The great principle involved in this is the cutting loose of the iris from its attachment to the posterior surface of the cornea, with one sweep of the Von Graefe cataract knife. After the eye has been made as aseptic as possible, either with boric acid, or 1 to 5000 mercuric chlorid, the curved linear incision is made with the Graefe knife, after the manner employed in doing anterior sclerotomies. Not always cutting upward, not always cutting downward, but sometimes to one side, sometimes to the other, the surgeon uses his best judgment, depending entirely on the situation and the extent of the incarceration, and the knife is entered .5 to 1 mm. outside the margin of the cornea, and the blade passed into the anterior chamber between the incarceration and the center of the pupil. The counter-puncture is made the same distance behind the limbus, if possible; then the operator cuts from within outward, through the incarceration, on out through sclera and conjunctiva. It is not necessary for the counter-puncture to be directly opposite the point of entrance of the knife, as it is in anterior sclerotomies or cataract extractions. The great object is to make as small a section as possible, and after one gets the point of the knife by the incarceration, one makes the counter-puncture at once, thereby reducing the size of the section to a minimum, for obvious reasons, having always in mind the conjunctival flap. The operator then turns this flap over the cornea, so that the wound may be exposed to view; then the iris forceps is introduced into the anterior chamber and the iris is caught, drawn out, and excised with the scissors. The columns of the coloboma are then replaced by means of irrigation with a sterilized decinormal salt solution, through a bulb syringe, which little device is generally very effective and without any bad results to the lens. When necessary, we resort to the spatula to help us out of the difficulty of freeing the pillars of the coloboma. Too much stress can not be laid on this point. The flap of the conjunctiva is then returned to position and the wound is sealed by stroking it with the spatula; one drop of a 16-grain solution of atropin is instilled, and both eyes are bandaged for twenty-four hours. The author's reasons and plea for the conjunctival flap are: 1. Fuchs claims that scleral wounds are less liable to become infected than those of the cornea, because of the slighter tendency that the sclera exhibits toward purulent inflammation, which is certainly worthy of consideration. 2. Another great advantage, which must not be overlooked, is that the wound heals much faster, thereby causing a quicker restoration of the anterior chamber, which, after all, is the desideratum. 3. The astigmatism is not nearly so great.

29.—See abstract in THE JOURNAL of February 10, p. 365.

34. **Blood-Count in Children.**—The value of the blood-count in young children is emphasized by Head. His experience does not teach him that it is unreliable in these cases. The leucocytes are more numerous in children than in adults, which fact must be taken into account, and also the leucocyte counts are not as definitely fixed as with adults. He claims that the white count is often of value in prognosis when the diagnosis is known, as in otitis media. It is also of value in appendicitis, in diagnosing typhoid, lobar pneumonia and pulmonary tuberculosis, meningitis, osteomyelitis, etc. Measles has no leucocytosis, while scarlet fever has a pronounced one, as has diphtheria, tonsillitis and acute articular rheumatism. La grippe usually presents a normal or diminished leucocyte count. The author reports fifteen cases illustrating the value of this system in childrens' diseases.

35.—See abstract in THE JOURNAL of Nov. 18, 1899, p. 1290.

38. **Neurasthenia and Insanity.**—Foster discusses the pathology of neurasthenia and insanity at length, and recommends especially the hydropathic treatment. He thinks that in all early forms of these two conditions special treatment in special institutions is highly desirable. The hospital might be under state or proper private regulation, admission to be voluntary on the patient's part, with the condition of remaining at least three months.

41. This paper was editorially noticed in last week's JOURNAL, page 568.

42.—This paper is also editorially noticed, this week.

43.—**Blood-Count in Paralysis.**—From examination of the blood in nine cases of paralysis, Jenks concludes that there is an increase of large lymphocytes prior to epileptiform and congestive seizures, but not especially at other periods. It does not follow that this increase necessitates the oncoming of such attacks, but it justifies suspicion.

47.—**Therapeutics for Stuttering.**—The leading principles in the treatment for stuttering, advised by Coen, are, first, methods of breathing gymnastics, of which the chief movements are: 1, deep, continued inspiration; 2, short expiratory movement of the breath; 3, gradual prolonged expiration; 4, holding of the breath. All of these should call into use the breathing muscles, and special consideration should be given to the diaphragm. The second principle may be called the regulation of the vocal and speech-producing organs. This is done by slowly enumerating the vowels and diphthongs, and gradually increasing the intensity and rapidity of their vocalization, a pitch being selected which is within easy range of the pupil's voice. The speech-producing organs are regulated by strongly accenting and loudly pronouncing single sounds and syllables, then words and phrases, carefully observing tone and pitch. As a third fundamental principle we must eliminate, as much as possible, the spasmodic periods of speech, diminish the excitability of the nervous system, establish an increased activity of the speech muscles. Treatment will have to be individual, with hydrotherapeutics, electrotherapeutics and drugs. The fourth principle is the exercising and strengthening of the will-power of the patient, and the fifth and last, the general stimulation and toning up of the system. Most stutterers are physically weak in some direction, and this weakness must have an influence on the vocal and speech organs.

52.—See abstract in THE JOURNAL of Dec. 16, 1899, p. 1553.

53.—Ibid., November 11, p. 1230.

58. **Trauma of Spinal Cord.**—Lloyd reports additional facts of a case formerly described, and gives attention to the autopsy. There was excessive destruction of the gray matter of the cerebellar and Gower's tracts, the posterior columns being comparatively intact, which explains the retention of tactile sensibility in this case. The pathology as bearing on the physiology of the cord is discussed. The case somewhat resembles the cases of syringomyelia, though there was no cavity, but the lesion involved the same regions of the gray matter.

59. **Landry's Paralysis.**—Three cases of Landry's paralysis are described by Knapp and Thomas, and the pathology of the condition discussed. They point out the resemblance to and clinical differences from poliomyelitis and neuritis. In nearly all cases of these affections we find acute ascending paralysis,

but the symptoms differ from Landry's paralysis, though the pathologic lesions are the same. Two of their three patients recovered, one completely. In the recovered cases there was a certain degree of muscular atrophy, and the absence of this in ordinary instances is, they think, due to the rapidity of the disease. It must be allowed that, excepting the anatomic changes as degeneration of the peripheral motor neurons, we must admit that atrophy and altered electric reaction would be inevitable were it not for the fact that death often occurs before there has been time for them to manifest themselves.

67. **Epilepsy.**—The treatment of epilepsy, recommended by Barr, consists in regular habits, and carefully selected diet, with frequent baths. He does not advise cold baths if the patient is opposed to it. The diet should be largely vegetarian, and the drugs he relies on are chiefly bromids, with arsenic to counteract the acne, omitting the doses sometimes so as to allow the system to recuperate. In nocturnal epilepsy he finds the single bromid with chloral valuable, and in anemic patients he employs arsenic, tincture of the chlorid of iron, while with girls he uses belladonna. In status epilepticus he first tries chloroform and if that does not act, gives morphia and atropia hypodermically. Surgical treatment does not commend itself to him. He mentions a case of a bright boy who was transformed, by trephining, into an excitable idiot, as an instance of the possible danger in such interference. He pleads, in conclusion, for the state care of epileptics in asylums and colonies.

69.—See abstract in THE JOURNAL of Dec. 31, 1899, ¶ 23, p. 1650.

73. **Legal Disabilities of Natural Children.**—Spitzka's paper, arguing for the defense of the legal disabilities of natural children, is practically concluded in this number, but numerous notes will have to be finished in the succeeding one. The article contains much curious information.

82.—This paper was editorially noticed in last week's JOURNAL, page 562.

89.—See abstract in THE JOURNAL of Dec. 2, 1889, p. 1425.

92.—Ibid., Feb. 10, 1900, p. 363.

97. **Treatment of Diarrhea.**—The chief point of Moore's article is the value of tannalbin in cases of fermentative diarrhea and in bowel complications in infectious diseases. He reports a number of cases of the treatment with this drug, usually in doses of 15 grains. He thinks it comes as nearly being specific for selected cases of diarrrhea as quinin for malaria, or mercury or the iodids for syphilis.

98. **Methylene Blue.**—The value of methylene blue in malaria is attested by Smithwick. He gives a table of results in fifty cases. He finds that in the hemorrhagic type the drug seems to be both a parasiticide and diuretic. In all, treatment was continued ten days after the last chill, and in only one patient was there a relapse. This responded to treatment, which is a contrast with the usual experience with quinin. From the reports of others and his own experience he deduces the following conclusions: 1. Methylene blue is a perfect succedaneum for quinin, and may be given whenever the latter drug is indicated in the treatment of malaria of every form and under all conditions with the same confidence that has always attended the administration of quinin. 2. Patients need not be selected on account of idiosyncrasies, as no bad effects ever follow the use of methylene blue, if given intelligently. 3. It is the remedy to use in malaria with hematuric complications, as it acts in a two-fold manner. 4. It is the remedy to be given in malaria occurring during the pregnant period, as it has no oxytoxic effect and will cause a freer action of the kidneys, which is also beneficial.

102. **Liver Lesions in Infants.**—The following is a summary of Freeman's article, which gives cases with autopsy results and is illustrated: 1. Descent of the liver down the right side of the abdomen, so that the right lobe reaches below the crest of the ilium, occurs not very rarely in infants, and particularly in those in whom the liver is enlarged. 2. Fatty livers occur very frequently in the infants and children who die at the Foundling Hospital, or in about 41 per cent. of all the cases. 3. The condition of nutrition of the child, as expressed by the absence of fat in general and wasting of tissue, apparently has no connection with the fatty condition of the liver, the condition of nutrition in the patients having fatty livers averaging about the same as in the whole number of cases. 4. Fatty livers occur rarely in the following chronic wasting disease: marasmus, malnutrition, rachitis and syphilis, unless such condition be complicated by an acute disease. 5. With tuberculosis, fatty livers occur not more often than with other conditions. 6. Fatty livers occur most often with the acute infectious diseases and gastrointestinal disorders. 7. The two cases of cirrhosis of the liver examined by the writer ran a comparatively acute course. The livers on section showed a marked hyperplasia of the so-called new-formed bile-ducts. 8. Focal necrosis of the liver may be a lesion of measles.

103 and 104. **Intussusception.**—The treatment of intussusception is fully reported on by Kammerer. He regards the use of distension as somewhat perilous, the most serious objection, however, being our inability to recognize when reduction has occurred. In acute cases an attempt at reduction should only be made very early in the case, and once only and with complete anesthesia and relaxation of the abdominal walls. Hot water should be preferred to cold, and in very acute cases the method should not be employed. Laparatomy should be the next resort, and he believes the mortality would be vastly reduced if operation was resorted to as soon as the diagnosis was made. He believes that the lateral incision through the border of the rectus muscle is justifiable, though Treves condemns it. As regards reinvagination, he does not think it necessary to especially guard against it, but if this is thought best, he would prefer to shorten the mesentery by folding it in the direction of the long axis of the intestine, retaining the fold by several sutures. He does not advise fixation of the bowel itself. The operative procedure given as available for the abdomen is: 1. Resection of the entire intussusception, with end-to-end suture or the establishment of an artificial anus. 2. Resection of the intussusception after longitudinal incision of the sheath. 3. The establishment of an artificial anus or of a lateral anastomosis, leaving the intussusception untouched. The establishment of an artificial anus does not commend itself to him, nor is intestinal anastomosis advisable. Resection, either of the entire intussusception or of the intussusceptum alone, should be employed in irreducible cases. It is an open question as to which of the two is to be preferred. In conclusion he speaks of the fact that children bear operation better than is generally supposed, and he mentions cases from his experience. Gibson holds that success in intussusception depends entirely on the promptness of the operation, and shows, by statistics, the dangerous results of delay.

112. **Tuberculosis of the Conjunctiva.**—Eyre concludes that cases of primary tuberculosis of the conjunctiva occur in the proportion of at least 1 to 2700 and probably more frequently, and the lesion is usually unilateral. It occurs either as a caseating ulcer, or as an inflammatory new formation of the granuloma type—if as the latter it belongs to one or other of four clinically distinct groups. It is extremely chronic and exhibits no tendency to undergo spontaneous cure, does not usually tend to implicate the cornea until quite late in the disease, and the iris later still. The preauricular gland of the same side as the affected eye is infected early, and then the next glands in the series, viz., those below the angle of the jaw. If untreated, the conjunctival lesion will probably serve as the primary focus from which the bacillus tuberculosis will become disseminated to distant organs. Removal should be thorough, and should be undertaken as early as possible. Under such circumstances, like other localized tuberculous lesions a permanent cure may be confidently expected. As to the microscopy of the disease, in the case of the ulcer, tubercle bacilli can generally be demonstrated by suitable means in the "scrapings;" but where the lesion is of the nature of a granuloma, it is rather the exception than the rule to detect the organisms in sections of the tissues, but in such cases the experimental inoculation of a portion of the diseased tissue into the anterior chamber of a rabbit's eye or the subcutaneous tissue of a guinea-pig will rarely fail to give a positive result.

113.—See abstract in THE JOURNAL of Sept. 2, 1899, p. 622.

115. **X-Ray Ophthalmology.**—Kibbe reports several cases of the use of the X-ray in detecting metallic particles in the eye, and compares the value of this method with that of others, especially the Asmus sideroscope. He thinks the latter un-

suited for the wants of the private practitioner, while the X-ray is more practicable and manageable than is commonly supposed.

116. **Electrolysis in Corneal Ulcers.**—Cornwall reports three cases, and describes the treatment of corneal ulcers and fistula by electrolysis. In this method the voltage must be very low and the amperage not more than one-quarter milliampere. With a magnifying lens, the parts where the epithelial disturbance is greatest may be slightly touched with the end of the needle. The dispersion electrode must be as near as possible to the operating electrode.

121. **Twin Ganglion Cells in Retina.**—Greeff describes what he has found in the way of twin ganglion cells connected with each other in the human retina. He has never found them in the retinas of rabbits or dogs. From one nerve-cell there arises a protoplasmic process thicker than all the others, which runs without division, and retaining its thickness, to a neighboring cell. The length varies greatly. Sometimes cells lying far apart are thus connected. Under high magnifying it is seen to be composed of a great number of fine fibers, some of which arise from the substance of each cell and run to the other. The staining method by which these are detected is that of Dogiel, with Bethe's fixing solution. The author believes that these connections may be considered association tracts, and would naturally be found the more frequently the more highly organized the animal.

133. **Prolapse of Iris.**—From his own experience and study of the reports and opinions of others, Harlan concludes that the prolapse of the iris during the after-treatment of simple extraction is by no means so serious an accident as many authorities have considered it; also very small hernias may safely be let alone unless they interfere with the closure of the wound. Again the best treatment for a large proportion of more extensive prolapses is prompt abscission; though infective inflammation of the iris or conjunctiva may necessitate delay, and in a certain number of cases there may be a third choice of treatment, besides abscission and expectancy, viz.: replacement; this presupposes the absence of adhesive or septic inflammation.

136. **Astigmatism.**—The method described by Jackson is somewhat similar to the common test for astigmatism. The apparatus consists of a rotating plate with three lines, across it. The lines and spaces subtending the angle should be slightly over one minute.

138. **Injuries to Crystalline Lens.**—Mitchell's paper is a report of cases showing the effects of injuries to the crystalline lens.

139. **Entoptic Observation of Retinal Circulation.**—Weiland, after noticing Norton's paper (see THE JOURNAL, xxxiii, p. 133), in which he claims to be able to see the image of the blood-corpuscles of the retinal circulation, and also the views of others on the subject, gives the results of his own experiments and draws the following conclusions: In the experiments with the cobalt glass we observe a phenomenon due to the circulation of the blood in the retinal capillaries; we do not see the blood-corpuscles themselves, nor their shadows, nor their light reflexes, but observe in the little bright bodies some relatively empty capillary spaces, produced by small temporary local stoppages of the circulation in the capillaries of the retina.

147. **Periodic Dipsomania.**—Remondino maintains that periodic dipsomania is due to some physical or psychic defect, and removal or change of occupation frequently destroys the tendency; that its periodicity may be due somewhat to a diathetic condition analogous to that of rheumatism or gout. In a majority of cases there is a tendency to self-limitation of the disease at certain ages, the age of strongest virility being the period of most frequent and serious attacks. Any physical condition disturbing the nervous system may be a factor in its causation, and it is more liable to occur in blond races. He believes it is due to ancestral habits of intemperance among these races. Our changeable climate favors its development, and occupation involving nervous strain, malaria, foul air, badly ventilated rooms, and other irregularities are all to be considered. The disease is liable to terminate in habitual drunkenness. Moral treatment is useless. Proper physical regimen, general observation to all hygienic laws, avoidance of irregular emotional strains, etc., are essential parts of the treatment.

148. **Alcohol and Suicide.**—Sullivan concludes that the suicidal impulse associated with alcoholism rarely appears until the intoxication has attained a certain chronicity, and in a very large majority of instances the chronic alcoholic makes the attempt during a bout of drunkenness; in considerably more than one-half of such cases there is amnesia of the act. In the suicidal alcoholic the chronic intoxication expresses itself, on the one hand, by a variable degree of dementia; on the other, by generalized discords of function—these latter in viscera which furnish the organic basis of the personality determine a depressed emotional tone, from which the suicidal impulse takes its origin. The generative organs, especially in women, are peculiarly susceptible to the alcoholic poison, and their disorders play a very important part in producing these emotional alterations of the personality, which precede and determine the suicidal tendency.

152. **Acute Alcoholism.**—Bauduy concludes that acute alcoholism is a self-limiting affection, resulting not from sudden withdrawal, but from excess and abuse of alcoholic "so-called stimulants," better called sedatives and narcotics in the doses in which they are taken, and that the expectant plan of treatment is the most rational. Again, opiates are dangerous because they additionally derange digestion, and, acting as cardiac sedatives, tend to paralyze the heart, and, finally, because they check elimination, interfere with the normal secretions and digestion. Sleep is never to be attained at risk or hazard to the patient, but is to be expected as one of the harbingers of a convalescence not to be forced. In acute alcoholism, as in many other acute diseases, the *vis medicatrix* is in most cases fully adequate to produce the happiest results.

154. **Appendicitis.**—First noticing the very extensive literature of the subject, Eastman discusses the cause, pathology, termination, diagnosis and progress of appendicitis. He finds no two cases entirely alike. The appendix is a sort of catch-basin for all kinds of bacteria, and is not freely drained as are other parts of the intestinal tract; it is, therefore, especially liable to infection and disease. As regards diagnosis, the diagnostic tripod is pain and tenderness with rigidity of the abdominal muscles in the right iliac fossa, with a tendency to obstruction of the bowels; added to this in at least 75 per cent. of cases is the history of similar attacks. The pain is nearly always reflected above the umbilicus, to the superior mesenteric or solar plexuses of nerves. Patients and physicians are sometimes deceived because the initial pain is not in the region of the cecum. Two cases are reported and operations described. Eastman insists on the vital importance of operating on the patient during convalescence from the first attack, after the bowels have been freely evacuated, the kidneys have rallied from the congestion and the secretory functions are reestablished. The prognosis in appendicitis will be governed by when, where, and by whom the operation is performed. He emphatically negatives the advice to operate as soon as the diagnosis is made, and insists on considering the three following points well: 1, when to operate, considering the stage of the disease; 2, that a more expert operator, with a larger experience, might be secured later; 3, the patient could possibly be removed to a special hospital. Again, operating when there is blood-serum about the appendix may necessitate a drainage-tube and cause a hernia, which can be avoided by operating in the interval. When called to an acute attack, he urges non-use of the hypodermic with morphin. He believes that a special institution constructed and equipped for abdominal surgery has given and will continue to give the best results.

160. **Posterior Urethritis and Prostatic Abscess.**—Guitéras' paper discusses the whole subject of urethritis and of prostatic abscess, giving the symptoms and treatment of both. He speaks highly of hot rectal douching and massage in the latter, and says that even large exudates may be benefited by the treatment, and the organs reduced in size by this method.

163. **Santonin in Epilepsy.**—Lydston's attention was called, in his general practice, to the value of santonin in spasmodic nervous affections, and he thinks that it has an effect on the nervous system entirely independent of its parasiticide qualities. His experience has shown him, to his own satisfac-

tion, that on the average, epileptic patients show better results under santonin than under the bromids. It acts well in cases in which the bromids are not tolerated at all, gives distinctly beneficial results where they fail altogether, and is free from injurious effects, which can not be said of the bromids. Especially is it free from such effects as melancholia, mental hebetude, profound nervous and circulatory depression, and disfiguring eruptions. Such disagreeable physiologic effects as it produces are not severe as a rule, and are transitory. The dosage given in text-books is insufficient; his custom is to begin, in the adult, with a dose of from 2 to 5 gr. of the powdered drug. As the taste is not disagreeable, he is in the habit of giving it uncombined. The dose is gradually increased up to the point of tolerance. He finds that many patients tolerate 20-grain doses three times daily for some weeks. As a rule the dose is gradually increased to about 15 gr. three or four times daily. The peculiar twitching about the mouth, said to be characteristic of the physiologic action of santonin, has not occurred in the adult in his experience. The best test of the tolerance of the drug is its effects on the genito-urinary tract. The intensely yellow coloration of the urine and irritation of the bladder and kidneys are the most important clinical features. He does not know what the extreme dosage is, as he has never exceeded 20 gr., but he believes this can be safely passed in adults; still he recommends caution in its use. He does not claim that it is a specific in epilepsy, or to have produced permanent cures by its use.

164. **Chloretone.**—The advantages of chloretone as an anesthetic are supplemented by its antiseptic effects, according to Dewar, who reports cases of its use for this purpose. He believes that it will prove a most valuable remedial agent in its threefold nature as a hypnotic, antiseptic and local anesthetic, and that in each of these fields it will fill every indication better than any single representative of each of these classes.

167.—See abstract in THE JOURNAL of Dec. 2, 1899, p. 1420.

168.—Ibid., p. 1421.

169. **Rectal Trouble in Negroes.**—Jones states, in opposition to Mathews, that hemorrhoids are just as frequent in the negro as in the white race, and some of the worst cases he has ever seen were in the blacks. There is no reason why the negro should not have them. His appetite is like a circle, it has no end, and includes everything. There is a constant taxation of the digestive tract, and this results in hemorrhoids. Stricture in the rectum is more common in the negro than in any other race. The reason is clear—syphilis. Of twenty-one cases which he has treated, twenty were in the female. What holds good in stricture of the rectum in the female holds as regards *fistula in ano* in the male. The majority of the fistulous patients have been tuberculous. Cold abscess of the buttock is common, and pruritus ani is so common that it hardly needs mentioning here, while threadworms are frequent. Proctitis is one of the most frequent diseases, as a result of dysentery, which is more frequent in the negro than in the white, and syphilis is an added cause. He has seen little tendency for it to extend into the colon, and as yet he has not seen suppurative and gangrenous colitis in the blacks. He will not be so dogmatic as to say that it does not occur.

173. **Excision of Cervical Sympathetic.**—The anatomy of the cervical sympathetic is first described and next the effects of surgical excision in certain disorders. Allowing for the effects of shock as a curative influence, Suker still thinks that in Basedow's disease there is a more logical connection between the effects and cause. The three cervical ganglia furnish the cardinal organs affected in this disorder: the eye, heart, and thyroid gland. Exophthalmus is due to the inverted action of Mueller's muscle on the globe. This muscle is supplied by the sympathetic from the superior ganglion, and is the nerve of propulsion of the globe of the eye. Hence a resection of this nerve will cause the eyeball to recede. The thyroid secretions are under control of the middle ganglion, as are also the vasoconstrictor fibers. Cutting off their influence will therefore check their action. The cardiac, as well as the pneumogastric filaments take their origin from the middle and inferior ganglia. The removal of these two will therefore inhibit the acceleration of the heart's action. Finally the effect on the cortex, of exsection of this ganglion system, is supposed to be beneficial in goiter, by those who hold to the theory of cerebral anemia in Basedow's disease. These four points constitute the reason why the removal of the sympathetic ganglia produces a cure or amelioration in this disorder. As regards epilepsy, he admits that the benefit of the procedure is problematic.

176. This paper has appeared in several other journals, as an original: see THE JOURNAL of February 10, ¶ 98, p. 357.

FOREIGN.

The Practitioner (London), February.

Treatment of Pneumonia. SAMUEL WILKS.—The author first notices the liability of pneumonia being overlooked, whether occurring independently or as a complication. His opinion is that whenever it has passed the stage of red hepatization, recovery never takes place, and this stage may be reached within a very short period. His treatment has been varied, and he criticizes the symptomatic treatment so popular with many practitioners. He believes in the old theory of the value of antimony in certain forms of pneumonia, and whatever doubts he may have as regards this drug, he has none whatever concerning the value of opium in this disease; still he does not find it, in consultation, given by other medical men. As regards his own views, he says that when he sees a patient with pneumonia taking a dose of saline and 5 grains of Dover's powder every four hours, or if we have bronchial complications some carbonate of ammonia instead of the saline, he is satisfied. He also believes in the use of a wool-covered jacket or warm fomentation, producing perspiration, but thinks blisters harmful.

Some Methods of Treatment of Pneumonia. HERMANN WEBER.—The writer reviews his experience in the treatment of pneumonia in Germany and England, and concludes that the very different methods employed at different times show that no really effective treatment has existed. It is possible that an abortive treatment by means of antitoxin may yet be discovered, and in that idea lies our chief hope.

Relation of Pneumonia to Pulmonary Tuberculosis. R. W. PHILIP.—The author discusses the two questions, whether pulmonary tuberculosis is apt to be complicated by the advent of pneumonia, and whether the latter may determine the establishment of pulmonary tuberculosis. As regards the first, he answers it unhesitatingly in the affirmative. The clinical fact is often observed, and he has found rather frequently, in the autopsy of persons dying with pneumonia, the evidence of pre-existing tuberculosis. Sometimes it appears that the course of pneumonia is undisturbed by the pre-existing disease, and it may even be lighter than usual. When the tuberculous disease is advanced, however, the occurrence of croupous pneumonia, while rare, is more serious; its mortality, according to Huss, being 33 per cent. The effects of pneumonia on pre-existing tuberculosis seems to be slight, but we note at times a prejudicial change in the tuberculous subject, following the attack. As to whether pneumonia determines the establishment of pulmonary tuberculosis, he thinks the chances of evil in this way are small. In analysis of 1000 cases of pulmonary tuberculosis from this cause, some years ago, he concluded that in only .5 per cent. was there traceable a close sequence of tuberculosis on croupous pneumonia. He thinks it therefore rare as a precedent factor. The general opinion, on the contrary, may be due to faulty interpretation of pneumonia occurring in cases of slightly advanced and incipient tuberculosis. In a few, where he has had the advantage of minutely investigating the remnant lesion after delayed resolution in croupous pneumonia, he has found it to be of non-tuberculous character. It must be borne in mind that occasionally tuberculosis is ushered in with symptoms and signs that may be mistaken for those of pneumonia. With the continuation of manifestations beyond the usual time limit, the continuation is sometimes erroneously described as one of delayed resolution. If, later on, true tuberculosis is established either in life or post-mortem, it is not difficult to understand how the mistake is made. He also remarks that there is much confusion regarding croupous pneumonia and acute exacerbations of pulmonary tuberculosis, which are sometimes diagnosed as pneumonia.

Surgical Aspects of Pneumonia. A PEARCE GOULD.—The surgical aspects of pneumonia, discussed by Gould, are: empyema, pulmonary abscess and gangrene. As regards the

former he goes at length into its nature and treatment. He knows no exception to the rule that every case of pneumococcic empyema should be operated on, while such may nevertheless exist. The details of the operation are given. The conditions on which a favorable course depends are as follows: 1. The absence of firm, thick masses or organized lymph binding down the compressed lung. 2. The thorough cleansing of the pleural cavity at the time of the operation. 3. Efficient drainage. 4. Resilient chest walls. 5. Strong cardiac and skeletal muscles. 6. The absence of double infection and other diseases. The surgical treatment of abscess and gangrene consists in direct opening, evacuating the pus and removing the dead tissues. One of the chief difficulties is in localizing the lesion. This should be done under anesthesia and with the exploring needle. Pneumonia as a sequel to surgical operations, injuries and other diseases is considered, and the author doubts the possibility of infection by an infected inhaler used by an anesthetist. Sometimes the operation is done immediately during the incipiency of pneumonia and the anesthetic gets the credit. Bronchopneumonia has been a much more frequent sequel to operation than the croupous variety. It is liable to follow the aspiration of blood into the finer bronchi after operation on the mouth and larynx. In fact, it is the chief cause of death after these operations.

Presse Medicale (Paris), February 8.

Renal Functions in Uremic Conditions. F. WIDAL.—Bard established that the permeability of the kidney for methylene blue varies in interstitial and epithelial nephritis. In interstitial the impermeability is mainly vascular: before reaching the epithelium of the tubules or the endothelium of the glomeruli the stain has to pass the rings of sclerosis that surround the arterioles and capillaries, and consequently the permeability may be defective while the noble elements are still intact. In parenchymatous nephritis, on the contrary, the blue comes in direct contact with the epithelium without having to pass any barrier, and the blue is eliminated as or even more rapidly than in normal conditions. Widal relates several observations which demonstrate that uremic symptoms may occur even with normal renal permeability. In a case of uremic coma, the elimination of the blue was normal the following day, although torpor, dyspnea and cephalea still persisted. The permeability of the kidneys probably varies with different, even closely analogous, substances. Uremia is a complex phenomenon; it does not depend exclusively on the condition of the kidney, but also to some extent on the action of the heart and the condition of the circulation, determined by the central nervous system; also on individual susceptibilities and the arousing of certain neuroses under the influence of autointoxication. In incipient arteriosclerosis the elimination of the blue may be retarded four or five hours, which is sometimes an indication of hitherto-compensated arterial impermeability in the kidney, while the arterial hypertension is still but slightly increased. The contraction of the heart must be studied in connection with the renal permeability. When parenchymatous nephritis is complicated with interstitial, there may be abnormal elimination of the blue in connection with the *bruit de galop* and arterial hypertension. The methylene blue test, Widal concludes, is an interesting means of studying, at the bedsire, some of the still obscure points of the functioning of the kidney in uremic conditions, although its results are somewhat unexpected at times.

Acute Traumatic Arthritis of the Knee in Children. A. BROCA.—Arthrotomy, never resection, is Broca's advice in these cases, whatever their origin. Never incise forward, along the edge of the patella. Make a long incision each side, on the rear portion of the lateral faces of the knee, extending from the end of the subtricipital above, down to and beyond the articular interline. Then insert a very large drain under the patella. This may not drain the joint completely, but in practice Broca has always found it sufficient, with no need for lavages.

Experimental Tuberculous Meningitis. A. SICARD.—The conclusions of this extensive experimentation on dogs state that diffuse tuberculous meningitis can be induced experimentally either through the blood or by direct inoculation in the cerebrospinal fluid. The lymphatic system, as a route of infection, has no part in the mechanism of this infection. Single leucocytes, emigrating from certain cavities in the vicinity, may however, under the influence of a pathologic reaction in the cavities—nasal, ocular, auricular—favor the inoculation of this fluid by their migration. This experimental tuberculous infection produces a diffuse process in most cases, involving the pia mater. In a few rare cases the meningitis occurs in patches. The toxins secreted by the Koch bacilli are an important factor in the evolution of the process. The cerebrospinal fluid is an essential factor in the dissemination of the bacillus and its toxins. The cellular lesions of the subjacent nerve-centers, in the course of diffuse tuberculous meningitis, may serve to explain the motor symptoms observed during life. In the course of an extradural tuberculosis, the lesions due to direct bacillary infection may be supplemented by lesions of the spinal cord from compression. The effusions or granulations on the pia mater are not necessarily the result of polymicrobian infection. The Koch bacillus or its toxins are able, alone, to induce these granulations.

Berliner Klinische Wochenschrift, January 29 and February 5.

Surgery of Gastric Carcinoma. H. LINDNER.—The question whether to ablate the glands is answered in the negative by Lindner, who states that in 28 cases of recurrence after extirpation of the carcinoma in the stomach, 15 were local; 12 at a distance, and in only one was a gland involved. He also considers that there is no reason to depart from established methods and make a resection instead of a gastroenterostomy when the former is still technically possible. He observes that this would be a step backward. He would also reject jejunostomy in place of gastroenterostomy.

Polyarthritis Chronica Villosa. M. SCHUELLER.—The essence of this affection, according to Schueller, is a chronic inflammatory proliferation of the synovialis in the form of peculiar fimbriæ and villi, producing irregular external protuberances. It differs from arthritis deformans chiefly in the non-participation of the cartilage and bone in the process. He was one of the first to have the courage to open the joint and extirpate the villi, and has now a record of twenty cases. There are two varieties, the hyperplastic and the ankylopoetica. The affection may persist for years, but never invades the cartilage. The general health is more impaired than with arthritis deformans. He has found nearly constantly a short dumb-bell bacillus in his cases.

Therapeutic Application of Moist Heat: Improvised, Self-Regulating Cataplasms. H. DAVIDSOHN.—The principle of these appliances, which can be made small enough for a hand or large enough to cover the mattress, is a rubber tube, coiled back and forth with a narrow space between each coil, and sewed to a rubber cloth foundation. Hot water is then sent through the tube from a reservoir above, into a receptacle below, the temperature regulated at will. The weight of the body is not sufficient to close the lumen of the tube when applied under the patient. For hospital use the appliance is made of four or five tubes coiled separately, so that each member can be treated independently of the rest if desired. A separate rubber sheet and lengthwise coil can be laid over the part treated.

Malaria. A. CELLI.—The substance of this communication was given in THE JOURNAL of March 3, p. 554. We note the further points that the malaria-bearing anopheles makes no noise and is less annoying than other varieties of mosquitoes, but it can pierce the toughest skin, and sting a number of persons in a single night. It is strange, Celli adds, how the traditions of generations in regard to the methods and hours of contracting malaria coincide with what we are learning in respect to the habits of the anopheles; also that getting chilled predisposes to contracting the infection. He notes that the highest mortality from malaria in Italy is in children between the fifth and fifteenth years. No race, he states is congenitally immune, but there are individuals who are constitutionally unsusceptible, and this immunity seems to be hereditary in some cases. Repeated injections of blood from a malarial subject fail to induce infection. There is also an acquired immunity from previous attacks, but this is much less stable and permanent than the organic one. Neither serum nor vaccin will confer artificial immunity, but this can be attained with certain drugs. Ecchinin protects against quartan and spring tertian, and methylene blue against sum-

mer tertian, even injected with 1 to 2 grams of blood swarming with malarial parasites. No tree or plant has yet been found fatal to the anopheles, except the artemisia absintium. Grown in a closed room, this plant kills mosquitoes.

Cerebral Pressure in Typhoid Fever. H. SALOMON.—In the early stages of typhoid fever, Salomon has noted an appearance in the papilla nervi optici suggesting pressure on the brain, although not pronounced papillitis. In five cases the cerebral pressure was tested and found to be 220 to 250 mm. water and 180 mm. in another case. After the escape of a few centimeters of cerebrospinal fluid, the patients experienced great relief, and this improvement was permanent in nearly all. The pressure on the brain may be caused by a purulent meningitis with typhus bacilli in the pus. Boden described, last year, a case in which the bacilli were found in the serous contents of the ventricles. The pressure may be the result of the direct action of the toxins, even with a low spinal pressure. An intrameningeal effusion may be induced by the toxins. This latter hypothesis best explains the favorable results of puncture in the five observations described. The symptoms were no severer than usual in a moderate case of typhoid fever, but this experience indicates that the disease must be frequently a meningotyphus, that is, typhus with an acute serous meningitis in the early stages.

Centralblatt f. Bakteriologie (Jena), January 24.

Duration of Bacterial Existence. H. L. BOLLEY.—This communication, from the Government Experimental Station for North Dakota, announces that cultures of various bacteria were sealed in 1890 by fusing the ends of the tubes, and that all retained their normal appearance, and good growths were obtained from a large number, when opened four, six and nine years later. The typhus bacilli retained their vitality for 4½ and the pneumococci 5½ years. Spore-bearing varieties made especially rapid, strong growths. There was no disorganization of the culture or medium, even in one tube that contained the typhus bacillus in a bouillon culture not opened for two years.

Centralblatt f. Gynecologie (Leipsic), January 27 and February 3.

Technique of Steam Treatment. A. DUEHRSSEN.—Digital palpation after dilation of the cervix with laminaria is the only accurate means of excluding the possibility of a malignant neoplasm and retention of membranes, which counterindicate vaporization. In severe cases Duehrssen steams the uterine cavity for eight minutes, with steam at 100 C. in the kettle, introduced through a wide tube after ample dilation. The cavity becomes obliterated in nearly every case, with no inconveniences. The involution of an inflamed uterus is much hastened and the results have been highly satisfactory and permanent, especially in pure climacteric hemorrhages. In one case the uterus contracted from 12 to 6 cm. in six months, and menstruation then returned. The patient had previously been curetted twice and injected with iodin without effect.

Total Extirpation of Vagina and Uterus on Account of Carcinoma. A. SIPPEL.—The vagina and uterus were removed without disturbing the carcinoma, through an incision extending from the left side of the introitus vaginæ, to a point 3 to 4 cm. above the anus. The vagina shelled out easily.

Deutsche Zeitschrift f. Chirurgie (Leipsic), November, 1899.

Cubitus Valgus Femininus. HUEBSCHER.—This writer announces that measurements on 225 persons have shown that the fore and upper arms of men and boys, and of girls up to 12 years of age, are more or less straight. Girls over 12 and adult women have a cubitus valgus that may run to 30 degrees. The appearance of the cubitus valgus coincides with puberty, and Huebscher attributes it to the fact that women keep their arms bent more than men, and also to the development of the hips, which force the forearm outward. In scoliosis a difference of 10 degrees between the two arms was observed in some cases. This cubitus valgus should be borne in mind in operating on fractures of the lower end of the humerus. Fractures of and above the condyles are liable to leave lateral displacement, best avoided by primary fixation in extension.

Incarceration of the Intestines in Peritoneal Pockets. W. MEYER.—One case was examined post-mortem and another cured by operation. In each there was a hernia parajejunalis, the first portion of the jejunum adherent to the posterior abdominal wall. There were no large arteries in the anterior margin of the hernial opening, and the mesentery of the small intestine was not adherent, but in consequence of the transverse course of the root of the mesentery, the hernia had worked itself into the retroperitoneal connective tissue of the right lower half of the abdomen.

Humero-Scapular Periarthritis. COLLEY.—Slight traumatism may start this affection, which consists essentially in a connective tissue alteration of the bursa subacromialis and subdeltoidea, while the joint is intact. It is accompanied by extremely severe pains. The muscles of the shoulder are found atrophied, and abduction restricted, while swinging and rotation are not interfered with. Early massage and passive movements are the treatment. In chronic cases the adhesions with the bursæ mucosæ must first be detached, in narcosis.

Jejunostomy in Case of Inanition from Ulcus Ventriculi. HEIDENHAHN.—Jejunostomy to one of the upper loops of the small intestine is recommended by Heidenhahn as the typical operation when the patients are too weak to stand a gastroenterostomy. He has done this in two cases with the most satisfactory results, leaving a drain in the small intestine, as Witzel suggests.

Deutsche Zeitschrift f. Nervenheilkunde, xvi, Nos. 1 and 2.

Diagnosis and Successful Surgical Treatment of Tumors of the Spinal Meninges. SCHULTZE.—Four observations are reported; the two first were correctly diagnosed and the tumor successfully extirpated. There was a longer or shorter preliminary stage of neuralgia, unilateral symptoms of compression of the spinal cord in the form of parasthesia and weakness, and finally manifestations of a transverse pressure-paralysis, and absence of the superficial abdominal reflexes. In one case the lesion proved to be an extradural tumor at the level of the fourth and fifth thoracic vertebræ. Another was an intradural fibrosarcoma at the seventh thoracic vertebra. The result of operation was favorable, as both motor and sensory disturbances almost completely disappeared. The two other cases were not operated on, but the diagnosis was confirmed at the autopsy: one an extradural fibroma, occluding the foramen magnum; the other an intramedullary glioma, extending from the conus medullaris into the dorsal portion of the spinal cord. Schultze considers intervention only justified when the diagnosis of a slowly growing, circumscribed, extramedullary tumor can be established. Neoformations extending upward, and of rapid development, exclude operation.

Monatsschrift f. Geb. u. Gyn., December, 1899.

Influence of Sugar on Delivery. A. PAYER.—A number of tests on parturients, reported in this communication, demonstrate that sugar increases the contractions of the uterus and hastens the birth, when labor is ineffectual, especially when administered during the stage of expulsion. Large amounts of sugar—100 to 130 gm.—given before the commencement of labor favorably influence the entire course of delivery. The sugar also seems to diminish the severity of the pains.

Wiener Klinische Wochenschrift, January 18 to February 8.

Hemolysin and Antihemolysin. R. KRAUS.—Certain blood sera, either normally or as immune sera, have the property of agglutinating and dissolving the red corpuscles of certain species of animals. Ehrlich showed, in 1898, that the tetanus bacteria can produce hemolytic toxins, and Madsen, last year, announced that two specific toxins are contained in the tetanus toxin: tetanospasmin and tetanolysin; also that each of these two has a special antitoxin. The Institute of Serotherapy at Vienna has been investigating the products of other bacteria, and Kraus reports the results, which show that various micro-organisms besides the tetanus bacterium, produce a toxin which is hemolytic for the blood-corpuscles of several species of animals. The hemolysin is found even in one-day cultures of various micro-organisms (bact. coli, cholera, tetanus, diphtheria, typhus, etc.), but the strength varies, even in the same culture. The medium seems to be a factor in this result. The hemolysin affects the hemoglobin also in some cases. The tests also demonstrated that the assumption of a specific character for the hemolysins and antihemolysins, is erroneous, as normal blood sera will neutralize the hemolysin, and the action of the hemolysin itself is not specific.

Lecithin in Milky Ascites. F. MICHELI AND G. MATTIROLO.—Four observations are described and the announcement made that the very small amount of fat particles in the effusions counterindicated a chylous character for the ascitic fluid. The opalescence of the fluid was found to be due to lecithin in solution. Chemical tests showed the presence of lecithin, and other tests proved that even smaller amounts of lecithin are capable of imparting sufficient opalescence to cause the milky hue.

New Radical Operation of Varicocele. A. NARATH.—The innovation consists in resecting the vena spermatica interna inside the inguinal canal, for several centimeters, and then closing the wound as in a Bassini operation.

Multiple Stenoses of the Small Intestine of Tuberculous Origin. S. ERDHEIM.—Each of the five cases was secondary to slight pulmonary tuberculous infections, and the multiplicity of the lesions counterindicated resection except in one case. Palpation of several tumors aided the diagnosis, and Sklodowski's sign: the presence of a tetanic rigidity of the intestine just above each stricture, with peristalsis felt in other portions. In most of the cases operated on, an enteroanastomosis connected the portion of the intestines above and below the part involved, thus diverting the course of fecal matters and favoring spontaneous retrogression of the lesions, when resection was counterindicated by circumstances. The colics, eructations and vomiting ceased at once after operation.

Restriction of Laparotomy in Favor of Vaginal Celiotomy. F. SCHAUTA.—As the fruit of twenty years' experience in gynecologic operations, Schauta asserts that laparotomy is better adapted for conservative operations and the vaginal route for radical intervention, except in case of ovarian cysts and fixation of the uterus. He tabulates 2391 operations, about equally divided between the vaginal and abdominal routes. The mortality of the former was 4.7 per cent.—including 2.8 per cent. directly due to the operation—and the mortality of laparotomy, 10.2 per cent., with 5.9 per cent. due to operation. He operated through the vagina in 92 cases, retaining the uterus, with 3 deaths; also for hysteropexy in 178 cases, with no deaths. The corresponding cases treated by laparotomy numbered 958, with 76 deaths. The operations through the vagina, in which the uterus was removed—842 in all—show a mortality of 50, including 28 as the direct result of operating. (Half of this mortality was in cases of cancer.) The corresponding cases operated on through the abdomen—321 in all—have a mortality of 55, with 35 ascribed to the operation. In all cases of carcinoma operated on, the percentage of deaths from recurrences was 21.4 by the close of the first year; 39.2 at the close of the second year; 53.1, third year; 62.7, fourth year; 66.4, fifth year, and 75 the sixth year. This is a slightly better average than Krukenberg's statistics. He found that only 17.6 per cent. were free from recurrence at the close of the fifth year, of all the patients operated on in the German clinics for carcinoma of the cervix. The mortality less than half, the painless, uncomplicated course of vaginal celiotomy, with its other advantages over laparotomy, place it far above the latter in selected cases. The objections of operating in the dark and difficulty in arresting hemorrhage, are all obviated by careful selection of the cases, and the technique which Schauta has been following for years. The entire operation from beginning to end must be carried out under the eye, the same as any other surgical intervention. Generally speaking, he concludes, laparotomy should be reserved for solid ovarian tumors, adherent or multilocular cystic and all malignant ovarian ones, for enucleations of myomata and for conservative Cesarean section. He considers the technique of vaginal celiotomy one of the greatest achievements of operative gynecology, but admits that it requires greater skill and patience on the part of the operator than laparotomy.

Air Embolism with Placenta Previa. H. HUEBL.—Three observations are on record of sudden death from air embolism with placenta previa, and Huebl adds another. The right ventricle was found distended with air, and a gaping vein in the placenta previa indicated the entering point. The patient was in narcosis, and the Braxton-Hicks version had just been easily accomplished when death occurred. He also reports a case of protracted death from the same cause, the third on record. The patient was not anemic: a large dead fetus had been delivered, and the uterus was intact. Irrigation of the uterus followed; the pelvis slightly raised. After the irrigation temperature rose to 39.5 C., with a long rigor and death in fourteen hours after expulsion. From these observations Huebl establishes the foundation for a diagnosis: 1. Exclusion of narcosis and thrombus death. Air embolism occurs in direct connection with the birth, while thrombosis may not appear until days or weeks afterward. 2. A clucking sound over the heart, with tympanism evident on percussion; also the possibility of the entrance of air into the veins during obstetric maneuvers. This is favored by the abrupt change in the abdominal pressure, which may cause air to be sucked up into the veins, as also the deep inspiration that follows the cessation of a labor pain. The pressure in the interior of the uterus may also be increased, and thus air be forced into a gaping vein, or a combination of these factors is possible. In sudden death from this cause the right heart was always found distended with air, but no bubbles had entered the circulation. With protracted death, however, the right heart was filled with a mixture of blood and air, and bubbles had penetrated quite a distance into the circulation, showing that the air might have entered the heart gradually. Possibly artificial respiration in the attempt to revive the patient may have pumped more air into the veins. This could be avoided by applying an air-tight bandage and tying the lower limbs together.

Wiener Klinische Rundschau, January 7, 28 and February 11.

Localization of the Mathematics Center. P. J. MOEBIUS.—Examination of 300 persons with a special talent for mathematics, has shown that the left frontal angle is more prominent. This prominence probably corresponds to an unusual development of the anterior end of the third frontal convolution. Like the speech center, this assumed mathematics center is predominant on the left side.

Simple Method of Effervescent Hydrotherapy. R. HATSCHEK.—This article describes a method of taking baths like those at Nauheim, by combining sodium bicarbonate, softened to a paste, with a tablespoon of warm water, rubbed briskly over the body, and a linen sheet, wrung out of a weak solution of hydrochloric or tartaric acid wrapped outside. Hatschek enumerates the advantages of this procedure, which surpass in some respects the actual carbonic acid gas waters. For one bath for an adult, about 60 grams of the bicarbonate are required, and 100 of 25 per cent. hydrochloric acid or 50 or 55 of tartaric acid, dissolved in 2 liters of water.

Two Cases of Tuberculosis of the Serous Membranes in Man, with the Macroscopic and Microscopic Picture of Tuberculosis in Cattle. J. PELNAR.—The peculiar, connective tissue, pedunculated tumors found on the pericardium or peritoneum were associated with other slight tubercular lesions in one case, and primary in the other. The tubercle bacilli were not very numerous, and were arranged in the tumors like actinomyces. Two other cases presented similar lesions, but no tubercle bacilli could be found in the long-stemmed tumor. Pelnar adds that cholangitis and pericholangitis tuberculosa hepatitis may appear as solitary, thick-walled cysts, the size of a walnut, with no other tuberculous changes in the liver.

Wiener Medicinische Wochenschrift, January 3.

Influence of Irritation on the Localization of General Affections of the Eye. W. SCHOEN.—"Many cases diagnosed as conjunctivitis are in reality merely local irritation from anomalies in accommodation, ametropia, astigmatism or insufficiency. Every subject with persistent, frequently recurring or chronic conjunctivitis, has either hypermetropia, astigmatism, presbyopia or insufficiency." Eczema, in case of irritations of this nature, affects the lids and cornea. Measles and scarlet fever are also liable to manifestations on the conjunctiva in such cases. Cataracta diabetica only occurs in subjects with ametropia or insufficiency. Refraction should be tested and defects compensated, as an indispensable measure in the cure of every eczema, keratitis or conjunctivitis.

Treatment of Cerebral Hyperemia. SEHRWALD.—A threatening case of sunstroke, in which all other measures had failed, was relieved and the patient restored by wrapping the lower members and lower portion of the trunk in a sheet dipped in very hot water, and covering with blankets. The favorable effect was undoubtedly due to the profuse sweat induced by this means.

Gazzetta Degli Ospedale (Milan), January 21 to February 11.

Necrosis of the Testicle from Torsion. O. BARDELLA.—The scrotum was contused in three slight traumatisms, and opened on suspicion of hematoma. One testicle was found twisted three times on its axis, and necrosed to such an extent as to require ablation. This makes the twentieth observation of torsion of the testicle on record. In some cases the torsion occurred without appreciable traumatism, the mesorchium being very short or absent altogether. Sasse asserts that the testis should be removed if the torsion is discovered and reduced before atrophy has commenced. The testis should be held with a stitch or two to prevent a repetition.

Development of Bacilli of Diphtheria and Anthrax on Egg and Coffee. G. PACINOTTI.—THE JOURNAL described (May 7, 1898, xxx, p. 1128) the green culture-medium produced by pouring white of egg on raw grains of coffee. The bacilli alter the color in a characteristic manner. Pacinotti again calls attention to the value of this combination as a differentiating medium. The decolorization is more marked as the bacilli have more need of oxygen, and is thus most pronounced with anthrax bacilli. The diphtheria bacillus commences to develop in eighteen hours, and in forty-eight produces gray spots in the green, with small white centers, which finally spread to cover the surface of the albumin, changing it from green to gray. The virulence is not diminished by this medium.

Stagnant Blood in the Heart at Each Systole. A. STEFANI.—Experimental research with dogs with fistulæ, and Marey's cardiograph, shows that a variable amount of blood remains in the ventricles of the heart after each systole: stagnant blood. The amount of this increases with increased pressure if the heart is overtaxed, but not otherwise. The increased pressure seems to stimulate the myocardium and help expel the blood when the heart is in good condition. Stefani also found that dyspnea tends to increase the quantity of stagnant blood, and that venesection diminishes the amount, also that the innervation of the vagi tends to keep the heart in good condition. The quantity of blood taken into the heart depends on the *expansive activity of the myocardium*, independent of the *contractile activity* which expels the blood. The contractile activity is regulated by the vagus, and there are many arguments in favor of the assumption that this innervation is subordinate to the processes of assimilation. Stimulation of the vagus, by increasing the amount of blood taken into the heart, can undoubtedly influence the amount of stagnant blood, but this increase is produced, almost specifically, by suspension of the respiration. If artificial respiration is suspended in a dog under the influence of curare, with a fistula in the pericardium, the size of the heart at the close of each systole and consequently the amount of stagnant blood, become progressively larger, as the amount of blood taken in increases, while the amount expelled does not vary. Artificial stimulation of the vagus with the induced current increases the amount taken in, and also the amount expelled, in due proportion, so that the quantity of stagnant blood does not vary. Compression of the aorta rapidly leads to an increase in the size of the heart if the vagi have been divided, showing that the vagus innervation tends to protect the heart from overexertion. The influence of this stagnant blood in the heart is still a question, but there are many reasons for assuming that it is not beneficial. The facts reported suggest the query whether the benefit derived from venesection in pneumonia—proclaimed by many practitioners—may not be due to the diminution in the amount of stagnant blood, which has increased in consequence of the dyspneic condition. Stefani does not answer this question, but remarks that it deserves the greatest consideration.

Cure of Aneurysms of the Aorta with Subcutaneous Injections of Gelatin. A. GERALDINI.—After establishing, by careful experimental research on six dogs, that the gelatin was completely absorbed and that it actually did promote the coagulation of the blood, Geraldini has successfully applied this method of treatment to four cases of aneurysm of the aorta. There were no inconveniences from its use, except transient smarting, and he recommends it in high terms, as absolutely harmless and a valuable measure in the relief of these unfortunates. He insists that the patient must remain in bed during all the time of the injections and for a while afterward, to allow the quiet formation of a clot in the sac. The formula is one or two grams each of gelatin and sodium chlorid to 100 grams of distilled water. The solution is heated to 37 C., and 10 to 20 c.c. are injected daily. The solution should be made fresh every two or three days, and, with a sterile solution, there is not the slightest general reaction nor disturbance of any kind. The injection should be followed by prolonged massage of the spot. The subjective disturbances gradually diminish and disappear, and the aneurysmal sac grows smaller and harder.

Case of Purpura Hemorrhagica Cured with Subcutaneous Injections of Gelatin. G. SENNI.—In the observation described, all remedies had proved ineffectual and a profuse hematuria suggested extensive renal lesions, when subcutaneous injections of gelatin rapidly dissipated all the alarming symptoms, and restored the patient to health. Two other similar cures have been reported by Arcangeli.

Vaccination as a Therapeutic Measure in Whooping-Cough. G. GUERCINI.—In an extensive epidemic of this disease Guercini vaccinated 145 children; 102 during the acute period. Of the latter, 24 recovered completely in one to two weeks, with the disease under control from the first; in 72 the disease was much attenuated from the vaccination, but lasted three to four weeks. No benefit was derived in six cases, and the disease persisted eight to nine weeks. Of 43 who were vaccinated as a preventive measure, only 9 took the disease, and it proved mild, with complete recovery in four to six weeks. Of the remaining 108 children in his practice who were not vaccinated, eight died from pulmonary complications, and the rest recovered after a long and severe siege of the disease. The vaccinated children received no other treatment.

Phototherapy. COLOMBO.—Electric-light baths have none of the disadvantages of other sweat-producing baths; the head can be outside. Wisely administered—never longer than five to eight minutes—the effect, in the writer's experience, indicates a high place for this bath in the therapeutics of the future. He states that it stimulates all the functions of the organism, although the temperature is not elevated and consequently the circulation is not disturbed. This effect he attributes to the chemical properties of the ultraviolet rays. It is not necessary to induce more than a slight perspiration for the maximum effect in most cases.

Medizinskiya Prib. (St. Petersburg), June to October, 1899.

Compensatory Hypertrophy of the Kidneys. P. JURJEW.—One kidney was removed by laparotomy, in a number of rabbits, dogs and guinea-pigs. The remaining one was found much enlarged in 60 per cent. after two months, and in 80 per cent. after a year. This compensatory hypertrophy was a genuine hypertrophy of the cellular elements, with the peculiarity that the cells which have the most work to do in the physiologic function of the organ were most strongly hypertrophied.

Scarlet Fever. K. MORKOTUN.—The writer noted, in his observations, that the urine contained albumin in cases complicated with suppurating processes. In one there was transient myxedema, evidently due to the involvement of the thyroid. In the desquamation stage the skin contained a number of micrococci, probably a species of streptococcus. The same cocci were found in the pus of an abscess. The presence of these cocci in the desquamating skin is probably the cause of the contagiousness at this stage.

Fatal Pulmonary Embolism After Fracture of the Leg. J. SVETCHNIKOFF.—A young soldier, with a simple fracture of both bones in the lower third of the leg, had syncope a few hours after a splint bandage had been applied; temperature rose and death followed in forty-three hours. Nothing abnormal was found at the autopsy until the microscope disclosed fat embolism of the smaller vessels of the lungs and brain.

Case of Typhus Accompanied by Edema of the Meninges. O. EBERBACH.—A boy of 14 died in the second week of typhus, with indications of meningitis. Meningeal edema and chronic pachymeningitis were found at the autopsy, with other indications of congenital syphilis. The meningeal lesions probably afforded a *locus minoris resistentiæ* for the typhus infection.

Westnik Obshch. Higieny (St. Petersburg), 1899, 2, 4 and 6.

Post-Mortem Delivery. A. STUPNIKOW.—The writer reports two cases in which the corpse of a pregnant woman was exhumed on suspicion of murder, and the fetus found delivered with the placenta, and complete prolapsus of the uterus. The accumulation of gases in the abdomen had evidently forced the fetus and organ in the direction of least resistance.

Injuries from Agricultural Machines. W. S. KLIMENKO.—The writer has had occasion to treat 165 injuries from agricultural machines, 18 fatal. He observes that threshing machines are particularly dangerous, and he advises a first-aid package as an indispensable adjunct to every machine, and that the foreman be trained in readiness for emergency injuries, as medical aid is seldom at hand on such occasions.

Hospitals in America. P. S. ALEXEJEFF.—A recent trip through the United States and Canada impressed our Russian confrère with the satisfactory conditions prevailing in our hospitals, "which leave nothing to be desired." He comments with wonder on the gratuitous services of the medical attendants: "an ideal standpoint, indeed!" The only drawback to American hospitals, he adds, is the fact that the relatives can refuse to allow autopsies of persons dying in them, which must entail a great loss to science in many cases.

Societies.

COMING MEETINGS.

AMERICAN MEDICAL ASSOCIATION, Atlantic City, N. J., June 5-8.

Medical Society of the Missouri Valley, Hamburg, Iowa, March 15.

Medical Association of the District of Columbia, Washington, April 5.

Western Ophthalmological, Otological, Laryngological, and Rhinological Association, St. Louis, April 7-9.

Tennessee State Medical Society, Knoxville, April 10.

Florida State Medical Society, Orlando, April 11.

Mississippi State Medical Association, Meridian, April 11-13.

Medical Society of California, San Francisco, April 14-16.

Medical Association of Alabama, Montgomery, April 17.

South Carolina Medical Association, Charleston, April 18.

Medical Association of Georgia, Atlanta, April 18.

Louisiana State Medical Association, New Orleans, April 19-21.

Medical and Chirurgical Faculty of Maryland, Baltimore, April 24.

Texas State Medical Association, Waco, April 24.

International Congress of Medical Electrology and Radiology.—Dr. E. Doumer, 57, rue Nicolas Leblanc, Lille, France, is the general secretary of this recently organized Congress, to be held in Paris, July 27 to August 1. Subscriptions should be sent to Dr. Moutier, 11, rue Miromesnil, Paris.

Medical Society of the State of Tennessee.—The sixty-seventh annual meeting of this Society is to be held at Knoxville, Tenn., April 10, 11, and 12, 1900. Knoxville is the quadrennial home of the Society. Reduced railroad and hotel rates will be in force.

Philadelphia Neurological Society.—At the annual election recently held, the following officers were elected for this Society: president, Wm. G. Spiller; first vice-president, John K. Mitchell; second vice-president, F. Savary Pearce; secretary, Augustus A. Eshner; treasurer, Guy Hinsdale.

Ontario Medical Association.—The annual meeting of this Association will be held in Toronto, May 31 and June 1, 1900; the annual banquet will be held on the evening of the first day. Part of one day will be given to a discussion of inter-provincial registration. There will be a large instrument and pathologic exhibit. Members are requested to send titles of papers to the secretary as early as possible. The Association will convene under the acting-presidency of the first vice-president, Dr. Adam H. Wright, Toronto, the late Dr. J. E. Graham having been elected president at the last general meeting. The secretary is Dr. Harold C. Parsons, 97 Bloor Street, West, Toronto.

New York County Medical Association.—The next meeting will be held on March 19. The chief features of interest will be a report of a successful case of excision of the cecum, by Frederick Holme Wiggin, and a symposium on serum therapy, in which the following named will take part: E. K. Dunham, Wm. H. Park, E. A. de Schweinitz, R. J. Wilson, Howard Lilienthal and Herman M. Biggs.

Medical Society of Missouri Valley.—The following program is announced for the coming meeting of this Society, to be held March 15, in Hamburg, Iowa:

President's Address, by Jacob Geiger, St. Joseph, Mo.

"Tetanus Neonatorum," by A. E. King, Blockton, Iowa.

"Report of Case of Metritis with Perimetritis Simulating Appendicitis," by S. E. Cloud, St. Joseph, Mo.

"Floating Kidney," by C. C. Allison, Omaha, Neb.

"Bilateral Nephrorrhaphy and Operation for Chronic Appendicitis," by J. Cameron Anderson, Omaha, Neb.

"Pterigia, Their Pathology and Treatment," by M. F. Weymann, St. Joseph, Mo.

"Dangers of Nature's Cure for Senile Cataract," by Harold Gifford, Omaha, Neb.

"Report of Case of Perforating Ulcer of Duodenum," by J. E. Summers, Omaha, Neb.

"Leucocytosis as a Factor in Surgical Diagnosis," by Jno. P. Lord, Omaha, Neb.

"Report of Case of Congenital Absence of the Vagina," by Donald Macrae, Jr., Council Bluffs, Iowa.

"Lobar Pneumonia," by Jno. M. Bell, St. Joseph, Mo.

"Neurasthenia," by Clinton E. Sapp, South Omaha, Neb.

"Some Experience with Infective Brain Lesions in Children," by F. E. Sampson, Creston, Iowa.

"Schleich Solution: Further Observations," by R. M. Stone, Omaha, Neb.

A paper by S. E. Cook, Lincoln, Neb.

Report of Cases and Presentations of Specimens.

American Academy of Medicine.—The twenty-fifth annual meeting of the Academy will be held at "The Shelburne," on the Beach at the end of Michigan Avenue, Atlantic City, N. J., on Saturday, June 2 and Monday, June 4, 1900. After the President's Address, by G. Hudson Makuen, Philadelphia, the annual symposium—"The Medical Aspects of the Home"—will be presented: "What are the Essential Conditions for a Habitation to Develop and Maintain a Healthful Family Existence?" by Rosa Engelmann, Chicago. "Influence of Early Training of Manly and Womanly Qualities to Avoid Degeneracy," by J. Chester Morris, Philadelphia. "Artificial Lighting of the Home," by S. D. Risley, Philadelphia. "Influence of Medical Supervision of Children in Their Homes," by J. Madison Taylor, Philadelphia. "Physicians' Influence *in re* Vacation Schools," by Helen C. Putnam, Providence, R. I. "Defectives and Delinquents Inside and Outside the Family Circle," by James W. Walk, Philadelphia. The following miscellaneous papers will be read: "Is Co-operation Between Colleges of Arts and Sciences and Schools of Medicine Desirable?" by A. L. Benedict Buffalo, N. Y. "Physiologic Psychology as a Necessary Element in Medicine," by W. J. Herdman, Ann Arbor, Mich. "Medical Education of To-day," by Bayard Holmes, Chicago. "Neglected Clinical Opportunities in American Medical Centers," by S. A. Knopf, New York City. Subject to be announced, W. L. Pyle, Philadelphia. "The Physician vs. Medical Proprietors and Medical Patentees," by A. Ravogli, Cincinnati. "Medicine in the Philippines," by Harry Park Ritchie, St. Paul, recently on medical duty with the U. S. V. in Luzon. Report of the Special Committee to formulate the conclusion reached regarding Specialism and Advertising, at the last meeting of the Academy.

Physicians' Club of Chicago.

Feb. 26, 1900.

SUCCESS IN MEDICINE.

This was the general topic for the evening, considered as follows:

WHAT IS SUCCESS IN MEDICINE?

DR. FRANK S. JOHNSON spoke on this subject, and said, in part: Literally taken, success is a following after, the sequel of an act or an effort. Two suggestive definitions are: "a

termination which answers the purpose," and "a prosperous termination of anything attempted." Success can not, even in ordinary matters, be defined in exact terms—its estimate depends on ideals of attainment. It is after all an estimate of worth. Medical success has many phases, many grades; it is subjective when it represents individual worth and the realization of high purposes by the best means; it is objective when it represents public recognition and esteem. It is embodied in altruistic effort, in professional eminence, in prosperity. In its various phases it may represent one or all of these results.

The full measure of success for the individual is the accomplishment of all that his mind and his strength can compass. In this attainment, his work must be guided by his ideals, and driven by his energy. His ideals are the measure of his ambition, his energy and intelligence the measure of his power. Success is the following of strong, well-directed effort. For the highest form of success, his ideals should be lofty and impersonal, his aim to help his fellow-man, to relieve suffering, to accomplish the greatest good. This should be the ulterior purpose of the physician. This with strength and ability, will lead to true success, the highest form: a form which embodies self-respect, love of art, of science, and deeper reverential love of the wonderful creation, his fellow-man, whom it is his duty and his privilege to care for—a creation in whose structures and functions and psychologic phases he finds a challenge for his deepest thought and strongest effort. The desire to unravel its complexities, to understand the laws that govern it, and the forces that impel it, becomes the handmaid of his higher interest. All that science can teach or skill accomplish is consecrated to humanity. The personal limitations of such effort are those of bodily strength and individual necessity. This is success idealized.

With such incentives, high attainment is inseparably bound with unselfish purpose. Self-effacement is complete—the effort and result alike are measured by intrinsic worth—the motive is often as productive as the act. True success is rare. It may pass unrecognized, so accustomed are we to grand efforts and high achievements marred by selfish desire. Success as we see it and think of it is far more human. Its heralds are Fame and Prosperity. It follows ambition rather than ideals. Ambition, self-seeking, may accomplish perfect results, but with equality in skill, the higher motive permeating the physician's work will create responsive bonds of feeling and will stimulate more earnest effort.

Under material interests alone, the practice of medicine is reduced to the application of science, the practice of an art. It becomes an occupation. It is no longer a higher calling. Its objects are material only. When such ambition is the highest impulse, satisfaction can never be complete. In every age, results are limited by imperfections of knowledge.

Medical success is sometimes measured by prosperity alone—the material result of practice shorn of all else may stand as the sole outcome of a life's work, or it may be an incident in the pursuit of high ideals. To the credit of our profession be it said that the physician's life is rarely so selfish as not to be broadened in some degree by scientific enthusiam or tinctured by human sympathy. Lack of all enthusiasm would preclude success. Lack of all sympathy would make the man abhorrent. It is true then that the greater the zeal-inspiring research and practice, the deeper the feeling that reaches out to suffering man, so much the more earnest will the work be, so much the better the result, so much the purer the success.

ELEMENTS OF SUCCESS IN MEDICINE.

DR. E. J. GARDINER discussed this topic. He said that it is very difficult to pick out any particular trait or characteristic with which a man achieves success. He presented a study of contrasts, selecting three prominent European physicians, each of whom was entirely different in make-up, personal attractiveness, skill, tact, etc., and yet all very successful practitioners. He then gave extracts from letters which he had received from prominent business men and well-known literary women. One wrote that the first essential of success is the actual skill and ability shown by the physician in fighting disease. The next important element of success lies in the physician's personal manner of speaking and of acting in the sickroom. Patients inwardly resent being regarded as so many bones, muscles and nerves. They appreciate certain kindliness and human sympathy which distinguish the physician from the veterinary surgeon. A prominent business man replied that the first element of success is social; the other scientific. One involves a knowledge of the world and of men and human nature, coupled with tact and adaptation; the other, a thorough and intimate knowledge of the human body and its disorders; this includes an insight to the disposition and temperament. A prominent business man and politician wrote that the principal element of success for the physician is the ability to make a correct diagnosis of his case. An eminent lawyer in Chicago wrote that, other things being equal, the man who could find out what ails the patient is the successful physician. A woman wrote that the main element of success in the physician is honesty. The speaker closed by quoting the famous saying of Michael Angelo: "Attention to trifles constitutes perfection, and perfection is no trifle."

ECONOMY OF TIME IN THE PRACTICE OF MEDICINE.

DR. WM. E. QUINE presented this phase of the subject. He said that one of the best ways to economize time is to do the work in hand, instantly. For him the term procrastination has a real and vital meaning. It is not only the thief of time; it is the thief of achievement, of practical success, of reputation. The importance of doing the work in hand, and of economizing minutes and hours, is not appreciated by ordinary mortals. It requires a person of rare and superior intellectual endowment to be able to utilize to the full the time that is entrusted to him. Economy of time may be exercised in the judicious selection of means of transportation from house to house. Physicians should study the quickest way of getting from one patient to another; the quickest way of getting into a house after the bell has been rung and the door opened; the quickest way of getting upstairs, attending to business, and dismissing irrelevant conversation; the quickest way of getting out of a house after he has transacted his business and done it with credit. He fully believes that if the medical practitioner would give attention to these apparently trifling details, it would bear a valuable fruitage. He knows of no better incentive to economy of time than that which is furnished by having fixed obligations, such as college or hospital engagements, etc., making it necessary for the physician to be at a particular place at a particular time. Punctuality is one of the very best guides to economy of time. Ability to economize it is largely innate. He knows of practitioners who will fuss and stew around and be as busy apparently in making six or ten visits a day as others would be in making twenty-five or thirty. He considers the physician who, in making a visit, will spend half an hour or an hour hobnobbing and trying to make himself agreeable, and as the expression goes, "solid with the family," incompetent. Dr. Quine referred to various unprofitable modes of investing time.

PROPER AND IMPROPER METHODS OF ADVERTISING.

DR. JAMES B. HERRICK divided advertising into three classes: proper, improper and doubtful methods. Those belonging to the first class are honest men; those of the second, dishonest, while the third are doubtful. He finds it difficult to draw hard and fast lines or to define exactly what is improper advertising. Improper advertising is dishonesty. The man who puts his name in newspapers and says that he can cure all cases of cancer is dishonest. This is an improper advertisement. The man who likewise advertises that he cures all sexual troubles is dishonest, and such an advertisement is distinctly improper. The man who reads a paper before a medical society, in which he states facts that are not established, in which he distorts statistics, and draws conclusions that are not warranted by the facts set forth, is dishonest. In reading such a paper he is attracting attention to himself and is doing something that is absolutely dishonest, and therefore is improper.

As to proper or honest methods of advertising, one could not walk along the streets without attracting more or less attention; he can not make a visit without, in a measure, attracting attention and thus advertising himself. For instance, a young practitioner, just commencing to practice, in due course of time receives a call to a patient. He studies the case carefully, makes a correct diagnosis, applies the proper remedy, and the patient recovers. Such a case advertises that practitioner to that family, as well as to the friends of the family and the

people of the neighborhood. This is a strictly honest advertisement, because he has simply done his duty. If the case presented unusual features, it is his duty to tell his fellow practitioners regarding them, and in so doing he is honestly advertising himself.

There are many difficulties to contend with in considering the third or doubtful class. There is the doctor who is always talking about himself and about his cases. He goes from house to house, tells what he has done, the many cases he has treated and cured, and narrates the same thing to his colleagues and to medical societies. If such a man says what is true and nothing else, it is honest or proper advertising, but even then it is bad taste, and in the long-run it will not pay. [Dr. Herrick then drew a word picture of the doctor who continually says ill-natured things of his fellow-practitioners.]

The reprint question is puzzling. If it is proper for a physician to send out a hundred or two hundred reprints, why can he not send out five thousand, or sixty thousand? Where shall the line be drawn? It may not be dishonest to do this, but is it in good taste? That is the question. The line must be drawn somewhere, but exactly where?

As to inserting a business card in a newspaper, the speaker would not do it, yet this question has come up three or four times recently in considering the question of admission of candidates for membership to the Chicago Medical Society. He considers this no worse nor more dishonest than to have one's picture in a paper, with a long string of titles of every position that a man holds to-day, has ever held and still hopes to hold in the future, and an article which is not worth the paper on which it is written. He does not think there is very much difference between those two.

As to the newspaper interview, he has grown more charitable toward those whose names appear occasionally in newspapers. Some interviews are perfectly justifiable, as when a new method of treatment is advanced which is of interest to the public, or a discovery in medicine. He believes the people have a right to know from physicians what is the opinion of the profession regarding a discovery or discoveries, and he deems it perfectly proper for leading men to give their opinions, which will be of great benefit to the public. But he would advocate a signed communication rather than the garbled interview.

He has grown a little more charitable toward those men who have had descriptions of wonderful operations given in newspapers, because in many instances these descriptions can not be kept out of them. The surgeon, however, who purposely and intentionally describes an ordinary operation as wonderful, and gives the details to a newspaper reporter, is absolutely dishonest, and such a method of advertising falls into the strictly improper class. Not infrequently descriptions of cases and of operations are given in newspapers in spite of the protests of both physicians and surgeons, and not infrequently this is done absolutely without their knowledge.

FEES AND COMMISSIONS IN THE PRACTICE OF MEDICINE.

DR. ALEXANDER HUGH FERGUSON spoke on this phase of the subject, saying that it is engrossing the attention of the profession everywhere. So much commercialism has been introduced into the profession, that the surgeon and physician must look after their own fees. In the practice ot medicine, as in all other walks of life, the laborer is worthy of his hire. The work in hand must be properly done. The physician or surgeon who takes advantage of his client, as, for instance, in trying to get more out of a poor man than he is capable of paying or earning for the next few years is dishonest. No one should charge a fee which would be a hardship on a patient. One of $10 would be a hardship to a poor man whereas one of $10,000 would scarcely be felt by a millionaire. He opposes the division of fees, as a surgeon with the attending physician, saying that the latter, who either sends or brings a patient to a surgeon for operation, should be paid for his services apart from the fee of the surgeon. He condemns the giving of a commission. The surgeon who would charge a big fee for an operation, and then pay the physician who referred the case a commission, without the knowledge of the patient, is literally robbing the latter.

DR. JOHN E. OWENS deprecates the giving of commissions, believing they should not be given or expected. Every physician who brings a patient to the city to have some operation done should be paid for his time and the expense incurred in so doing, but not by the surgeon. If the attending physician has not business ability enough to collect a fee for so doing he could not expect the surgeon to do it for him. The competent surgeon is rarely overpaid for his work. There is injustice in charging a rich man a big fee for expert work while a moderate fee charged a poor man might work considerable hardship.

DR. HAROLD N. MOYER believes that the evil of paying commissions is by no means universal, but that it is gradually expanding there can be no doubt, and with Dr. Ferguson, he characterized it as a dishonest and disreputable practice. To take a man's money out of his pocket and give it to another man without his knowledge smacks of the transactions of the confidence man.

DR. JOSEPH ZEIGLER said, in speaking of two elements of success, that one is a thorough medical training, and the other tact. The physician must know what to charge. There are a great many roads to success. The most pronounced charlatans make a success, if by that term is meant the acquisition of considerable money. The practitioner with smooth manners and captivating ways makes a success. He expressed a profound contempt for those who advocate the giving of commissions. The work of the physician or surgeon would advertise him better than any other means that could be pursued, and is more successful in the end. The key-note of the whole subject lies in the word honesty.

Cleveland Medical Society.

Feb. 9, 1900.

ENTEROPTOSIS.

DR. N. ROSEWATER read a paper on "Enteroptosis Relative to Disorders of the Digestive Tract and Circulation." He reported the case of a girl, 7 years old, who had always been speechless, due to a badly hypertrophied tongue, the left kidney floating and the right one palpable. There was gastroptosis and enteroptosis and incontinence of urine from infancy. The skin and extremities were cold and sweaty. She was treated by adhesive strap bandages to hold the viscera in place. There was no medication. Her speech, which was originally only a guttural sound—"guh"—is now perfectly normal, as is the tongue. The kidneys remain in place and are not palpable. The incontinence of urine ceased from the first bandaging; her digestion and circulation improved. The skin is dry and the extremities are warm. The writer asserts that a drag on the main abdominal vessels, arterial, venous or lymph or their branches, at or below the diaphragm, such as may occur in enteroptosis, can cause functional stenosis, resulting in increased heart action by increased thoracic or cranial pressure, and disturbances, such as hypertrophies, aneurysms, edemas, etc., as well as visceral and digestive disturbance from pressure, drag, etc., producing local anemias, stasis, hyperemias and nervous disturbances. Other cases are reported illustrating these disorders, etc.

DR. W. H. HUMISTON said that, some years ago, when studying in Vienna with Pawlik, it was an exception when, in patients with pelvic diseases, he did not find a prolapse of the right kidney with very often an associated dilated stomach. He has found this same condition in the majority sent to him for pelvic disease, and the treatment of the latter is not satisfactory unless these displaced organs are taken into consideration.

DR. R. J. WENNER was unable to see how any appliance or bandage could be used that would keep a prolapsed kidney in place permanently. In his own experience he has never found any good results from such appliances. In regard to the tugging on the aorta, of which the essayist spoke, he inquired as to the tone of the femoral pulse at such times. In the literature of this subject, in the last few years, some stress has been laid on the existence of the floating tenth rib as a stigma of inherited ptosis of the abdominal organs.

DR. J. P. SAWYER said that simply determining the level of the lower border of the stomach does not indicate the degree of ptosis of that organ. The position of the upper border is one that, when determined, gives positive information. In ascertaining the relation of the stomach to the nervous phenomena mentioned by the essayist, the position reached by the

lower border of the stomach, even if exceedingly low, is of very little importance when compared with the condition of the motor sufficiency of the organ. A factor of great moment in these cases is the inheritance of the neurasthenic tendency. In many cases of neurasthenia and hysteria the stomach is in average normal position, and in many cases its functions are well performed so far as can be ascertained.

DR. N. ROSEWATER, in closing, said that he had used an adhesive-plaster bandage made to fit, and kept it on for nine months, and his patients preferred it to the made-up harness. He has not noticed the condition of the femoral pulse in reference to the tugging on the aorta. He considers the position of the lower border of the stomach of some importance because it might indicate that the stomach is encroaching on other organs and causing disturbance of their functions by pressure. He has also noted that the lower the stomach falls the less likely it is that it can empty itself in the average time, which will give rise to various disturbing symptoms.

INTUSSUSCEPTION AT SEVEN MONTHS.

DR. F. S. CLARK read a paper on "Intussusception in a Seven Months Child; Operation and Recovery; A Second Obstruction Three Weeks Later Followed by Death." This infant was taken dangerously ill with a sudden pain, and in a short time had a temperature of 99 F. and a pulse of 160. The pain was paroxysmal and the straining severe. Blood was passed after injections. Under chloroform an unsuccessful attempt was made to reduce the intussusception by injections of water. At the end of the first twenty-four hours abdominal section was made by Dr. F. E. Bunts. Six inches of the ileum were found invaginated into the cecum. Shock during the operation was very marked, but recovery was perfect. Three weeks later much the same symptoms recurred but with less straining and no hemorrhage. The general symptoms became more grave and the child died in twenty-four hours, the conditions not warranting a second operation. At necropsy an adhesive band was found running from the ileum near the cecum over a loop of small intestine, which caused obstruction and death.

DR. F. E. BUNTS said this baby represented the usual course of intussusception very well. Diagnosis was difficult because of the absence of any tumor even when under anesthesia. When diagnosis can be made early, operation holds out considerable hope for relief. However, a small number recover without operation, and adhesions take place so rapidly that after the third day it would be very difficult if not impossible. Adhesions that are the cause of death are due to the inflamed condition that occurs during the period of intussusception. Operation for the second obstruction holds out no hope whatever, and he thinks it is the duty of the surgeon, when diagnosis of intestinal obstruction is made, no matter of what form, to make an abdominal section.

DR. L. S. CHADWICK had seen two cases of intussusception in the last six months. Both the parents objected to an early operation, and when it was performed at the end of twenty-four hours the result was unfortunate.

DR. M. ROSENWASSER said that in these cases the chief question is in making a correct diagnosis sufficiently early. Many occurring in the summer months are diagnosed as dysentery. Occasionally cases occur in which the pressure of a water-column will succeed in reducing the invagination. He reported a successful one under this method of treatment, in which the water was held at the height of seven or eight feet. When the intussusception is low down, a positive diagnosis can sometimes be made by rectal examination. In nearly all cases there is one thing that aids in the diagnosis, i. e., the sphincter ani muscle is thoroughly relaxed.

DR. S. L. BERNSTEIN mentioned the case of a child, 14 months old, with intestinal obstruction, in whom no tumor could be found, and the only symptoms were the tenesmus, the passage of bloody mucus and the relaxation of the sphincter muscle. Inflating the colon with air did no good, but injections of a pint of warm water under considerable pressure relieved the obstruction at once.

DR. L. REICH noted that air inflation was much less safe than injection of water at high pressure.

DR. F. S. CLARK, in closing, said that the paroxysms of pain are very different from the colicky pains in diarrhea and dysentery. Only hypodermic injections of morphin would control the pain in this child. Yet despite the difference in cause, the symptoms in the two attacks were very greatly alike. The absence of hemorrhage in the last one was about the only symptom which was different from those in the first.

DR. W. H. HUMISTON reported a case of this condition in a woman aged 29 years, who had had two children and one miscarriage. On Nov. 8, 1899, she submitted to a criminal operation. Following the use of the sound she had chills, fever and the usual symptoms of peritonitis. When seen on Jan. 5, 1900, she was very anemic and had a temperature of 101 F., with a pulse of 100. The cervix was swollen, the uterus in normal position but enlarged and tender, and a large fluctuating tubal abscess was found on the left side. There was a slight, bloody, mucopurulent discharge from the cervical canal. Under anesthesia, a few days later, the abscess was found to be much smaller and only curettement was done. On the sixth day the peritonitis recurred with a rise in temperature. On January 27 the uterus and appendages were completely removed, per vaginam. Subsequent examination disclosed no decidual cells, but on the posterior wall of the uterus near the fundus was found a small excrescence, which, on microscopic examination, proved to be one of the rare instances of malignant deciduoma.

DR. R. J. WENNER thought the diagnosis of malignancy had not been established in this case, and he criticised the removal of the ovaries as well as the uterus. He believes that hysterectomy is not justified except in case of a positive diagnosis of malignancy, and said he had yet to see the first thoroughly well woman who had had both ovaries removed. While the patients may be relieved of much pain for a time, the after-effects in the way of various phenomena are usually quite serious.

DR. F. E. BUNTS asked the reporter if, in such an operation, after the uterus had been cut through, he pushed one-half of it back into the pelvic cavity, and if this is done does it favor the introduction of septic material into the peritoneal cavity?

DR. HUMISTON, in closing, said that the uterus was thoroughly cleaned out with alcohol and strong bichlorid solution. He would be glad to show Dr. Wenner a large number of patients from whom the uterus had been removed, who are perfectly well to-day. In these cases of chronic discharge of pus from the uterus, either from the organ itself or from a pyosalpinx, any temporizing operation is only partially successful. His best results and most satisfactory recoveries have been following the total removal of the tubes and ovaries as well as the uterus.

Detroit Medical and Library Association.

Feb. 19, 1900.

INFANTILE NEPHRITIS.

DR. CHAS. DOUGLASS read a paper on this subject. He referred to the rarity of nephritis in infancy as recognized by physicians, stating that it is a matter of doubt whether this is due to the fact that it is so difficult to get a sample of urine from these patients, or that the disease is really rare. As the infantile organs have a capacity five times greater than the usual necessities of the body, we can easily see that many attacks of nephritis may be too slight to be recognized by edema. This would be particularly liable to happen when only one kidney is involved. The great diuretic power of milk clouds many of these attacks in infants confined to a wholly or partly milk diet. The Doctor gave a brief epitome of the literature on the object of nephritis, for the past forty years, stating that in all this there is little reference to the nephritis of infancy, most writers referring to the nephritis of childhood. As to the symptoms of acute nephritis, they are those of any febrile disease, and as these are so common, the attention of the physician is seldom drawn to the kidneys unless there is decided absence of urine. The only reliable symptom in infancy is edema. The Doctor related the histories of four cases of infantile nephritis which came under his notice during the past summer, giving the treatment he used and the results. He found that a diet of diluted cream produced the best results. Under a diet of beef extracts or starch, the patients did not show any improvement. In none of these cases did he aim at a medicinal treatment of the edema, but relied entirely on the diuretic power of the dilute cream or milk. In each case the result was prompt and satisfactory.

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61 MARKET STREET, - CHICAGO.

SATURDAY, MARCH 10, 1900.

SPERMOTOXIN AND ANTISPERMOTOXIN.

Metchnikoff's recent investigations on the problem of antitoxins and their origin, and especially his reports on anticellular serum, to which reference has been made recently in these columns, have attracted a great deal of interest on the part of newspapers. Lengthy interviews have appeared, his private life has been described with great detail, and his discovery announced of a serum against old age. Whether the fountain of perpetual youth is to be discovered in the laboratory of experimental pathology is not for us to say, but certainly the recent demonstrations of Metchnikoff and several others, both German and French investigators, of the various reactions of organisms under the influence of toxins, hardly warrant the sensational statements of the press. And yet it can not be denied that these highly interesting researches throw light into obscure places in physiology and pathology. The intercellular struggles and the formation of various kinds of antitoxins, described by Metchnikoff and others, seem to open a new and rich field of study. This new method of investigation was undertaken largely as the result of controversies as to the mode of action and place of origin of bacterial antitoxins, such as tetanus antitoxin. It has been shown that the serum of one animal treated by injections of the serum of an animal of a different species acquires the property of dissolving the red blood-corpuscles of the second animal. Now similar facts have been determined as to other cellular elements, such as ciliated epithelium, leucocytes, spermatozoa. And against all these cellular poisons there develop specific antitoxins.

The most recent research of Metchnikoff[1] along these lines deals with spermotoxin and antispermotoxin. The testes of rabbits, finely divided and macerated in physiologic salt solution, were injected subcutaneously in guinea-pigs; the injection of the extract of two or four rabbit's testicles suffices to produce a marked spermotoxic action on the part of the serum of the guinea-pig. Normally this serum is not harmful to the spermatozoa of rabbits, except in much larger doses than the serum of the animals injected. This artificial spermotoxin immobilizes the spermatozoa of the rabbit in a few moments; when the immobilization occurs with moderate rapidity, the spermatozoa are clumped in small masses, the tails forming peripheral radiations. Solution of the spermatozoa was not observed. This spermotoxin is specific in its action, other cellular elements of the rabbit except the rabbit's spermatozoa not presenting any special changes under its influence; the spermatozoa of oth animals are not affected by it.

Now, the subcutaneous injections of rabbits wi spermotoxic serum quite promptly produce antisperm toxic substances. Spermatozoa, placed in a mixture the spermotoxic serum of the guinea-pig and serum rabbits treated with spermotoxic serum, remain mobi in every experiment, while those placed in spermotox serum only are rendered motionless. The antisperm toxin develops in the serum of castrated rabbits just well as in that of the non-castrated, hence antisperm toxin appears to be elaborated by other cells than t spermatozoa. This was also shown by the fact that t spermatozoa of a rabbit that has been injected wi spermotoxic serum and whose blood has acquired ant toxic powers, were immobilized by spermotoxic serum the antitoxin is not the product of the sensitive cel This is analogous to the experiments of Roux and Borrel who produced cerebral tetanus in a rabbit rendered ac tively immune against tetanus toxin, the blood seru being antitoxic. In both instances the sensitive elemen is affected by the toxin in spite of the presence of anti toxin in the blood. Metchnikoff does not discuss, an further, the exact origin of antitoxin in this paper. I may not be entirely out of the way to suggest that in ad dition to their value as bearing on the broad question o toxins and antitoxins, in general, these experiments ma contain the germ of some explanation of certain phenom ena in connection with human sterility. The existenc under natural conditions, of spermotoxic substances i individual animals including woman is not impossible

[1] Ann. de l'Institut Pasteur, 1900, xiv, 1.

ALCOHOL AND SCHOOL PHYSIOLOGIES.

In a number of states, at the instance of active temperance workers, laws have been passed prescribing instruction in the public schools as to the toxic action of alcohol. It is charged by some, and very recently by Professor Atwater, whose experiments—previously noted in THE JOURNAL—are known throughout the world, that the text-books used contain errors, notably in denying absolutely any food value to alcohol, with other inaccurate statements. He is reported as saying: "There are many errors in these text-books, sometimes the error consists in stating doubtful theories as attested facts; in other cases the principles laid down are partly true and partly false; in still others the statements are squarely opposed to all the latest and most accurate scientific research." He proceeds to say, further, that the impression these text-books convey—as the facts—is "that science teaches that alcohol even in moderate quantities is always harmful and never useful. This is untrue."

It is easy to believe that ardent advocates of temperance, seeing all the evils that result from the use of alcohol, have seized upon whatever apparently scientific facts seemed to support their cause, and have used them to the best advantage from their point of view. It is also true that many of the text-books prepared by strong advocates of their cause, not always the most competent,

contain some such errors as Professor Atwater says they do. It is an unfortunate fact that zeal, even in a good cause, too often overshoots its mark, and the after-effects of errors in the teaching in regard to alcohol may be, as he says, disastrous and undo all the good that was attempted. This does not necessarily imply any intentional misrepresentation, but simply an indiscriminating seizing on apparently favoring facts that are not sufficiently established, in support of their contention. It is not generally recognized by the laity, or by some others, that there is nothing less certain than alleged scientific facts in regard to questions that are in dispute, like those of the economic combustion of alcohol in the system. If the popular physiologies would admit this, and confine their positive statements to the undeniable facts of the evil effects of alcohol, there would be no need of Professor Atwater's criticism. The teaching of these in the schools is a perfectly proper proceeding, but it should be confined to the positive truths and legitimate inferences. Even these latter, when supported by unnecessary erroneous statements, lose their force and are liable to be rejected in spite of the actual facts on which they are based. What is needed is a thorough revision of the text-books of physiology, if this is to be taught in our public schools.

On the other hand, there is a danger in the Professor's criticisms, that he does not perhaps fully appreciate, but which is emphasized by some of the newspaper comments and reports of his remarks. He carefully guards his statements that alcohol is a food, but his testimony as to its dangers is neglected by some who quote him, while all that he says as to its possible value in any way is picked up and made the most of. It is, as has been said in these columns before, perilous to say anything in favor of alcohol, as misrepresentations and exaggerations are the certain results. All Professor Atwater may say to qualify his remarks as to the utility and advantage of this agent as a food will not prevent his being quoted as an advocate of its use as a steady diet. That he desires this is not to be supposed, hence his position as an honest investigator in this subject has its disadvantages, but they seem to be unavoidable. The temperance workers for their part will do well in the future to avoid the errors of accepting disputable statements as positive facts, and they can safely afford to treat the food value of alcohol as an entirely negligible quantity; it is not taken or given as a food, but for its effects on the nervous system, and these are not considered in Professor Atwater's studies. Let the text-books be corrected to agree with what is known, and there will be left enough undisputed facts to serve their purpose.

POLYMYOSITIS.

As a rule diseases of the muscles are not described systematically in the text-books, and when described they make only a small chapter, although these tissues may be involved in various morbid conditions, some congenital, others acquired. Thus, they may undergo atrophy or hypertrophy from various causes, may be the seat of inflammation, of new-growths, or of degenerative changes, of spasm or of paralysis. These conditions are, however, most commonly secondary or consecutive, in spite of the generally exposed situation of the muscles. Primary, or rather independent, affections of muscle have been described: 1. Dermato-myositis, in which also the skin is generally involved. This condition is attended with rheumatoid pains, stiffness and tumefaction of the extremities, febrile movement, firm edema, especially of the face, redness of the skin, impaired mobility, excessive sweating and enlargement of the spleen. The morbid process may involve the muscles of respiration and of deglutition, and usually terminates fatally. The disorder may pursue an acute, a subacute or a chronic course. The anatomic alterations and the histologic appearance are those of inflammation of muscle. 2. In hemorrhagic polymyositis extravasations of blood take place into the muscles, and the myocardium also is involved. Tumors may form in various muscles successively, with edema of the skin, and this also may be the seat of hemorrhage. Derangement of the action of the heart is generally present, as manifested by palpitation or tachycardia or cardiac insufficiency, and hypostatic edema, and finally, paralysis of the heart may occur. The disease may persist for months, and death is the usual termination. 3. Progressive ossifying myositis is attended with infiltration of the muscular tissues with lime salts or osseous matter, and resultant rigidity and loss of mobility. Multiform erythema may be attended with myositis and arthritis, and under such conditions has been thought to be of rheumatic origin.

A typical case of hemorrhagic myositis is reported by Bauer.[1] A coachman, 39 years old, had been seized eight weeks previously with severe and sharp pains in the muscles of the legs, and in the course of two weeks swelling became superadded. After the lapse of some four weeks, pain and swelling appeared in the right thigh, and two weeks later also in the left arm. The general condition was poor. Sleep was disturbed in consequence of pain; the appetite was impaired; slight fever was present; the face was reddened; but no edema was present. In the left arm, corresponding to the triceps muscle, there was a tender and painful, circumscribed swelling of considerable size, while the adjacent muscular tissue exhibited doughy induration. A similar condition was present in the upper third of the calf of each leg, and subsequently swellings appeared in the right popliteal space and on the flexor aspect of the right thigh. Areas of dark pigmentation, surrounded by a zone of violet hue, were present in the neighborhood of the right patella, the inner aspect of the knee-joint and the external aspect of the right elbow-joint. The apex-beat of the heart was not palpable, and the heart sounds were feeble. The liver and the spleen, and also the inguinal and epitrochlear glands were enlarged. The knee-jerks were increased. The temperature was slightly elevated

[1] Deutsches Archiv f. Klin. Med., Bd. lxvi, p. 95.

and pulse and respiration were accelerated. The symptoms progressed gradually and death resulted from asthenia. Only on the day of death did the urine contain a trace of albumin.

On post-mortem examination the muscular tissue in places presented a brownish-red appearance, with punctate and linear pigmentation, and in other places a waxy-yellow appearance. The pericardium contained an excess of turbid fluid. The epicardium over the left ventricle contained a considerable number of small ecchymoses. The wall of the right ventricle was in part brownish-red, and in part yellow. The wall of the left ventricle exhibited a prominence that on section proved to be a hemorrhagic extravasation. On histologic examination the muscle-fibers were found separated by hemorrhages, being in part normal and in part the seat of a degenerative process, with multiplication of their nuclei. In some places the muscle-fibers were separated by accumulations of leucocytes, the appearances of a hemorrhagic and purulent inflammation being created. The staphylococcus pyogenes was found in pure culture.

BRAIN WORK AND INSANITY.

Occasionally we read of the high tension at which men now live, such comments usually being called forth by the abrupt ending of the career of some busy man. This furnishes the text for a discourse on the rapidity of this age and a lecture on the advisability of conserving the nervous form and not over-using the brain. Not infrequently, statements are made that insanity is increasing and that this is due to the excessive employment of people in brain work.

In the first place, it is not positively known that insanity is increasing. Nothing can be predicated from the statistics obtainable in this country, on this question, but in England the records have been kept with considerable accuracy, and a careful study of their statistics would not enable one to say positively that insanity was on the increase. The whole number of lunatics in public and private institutions has increased in Great Britain, but how much of this is due to an earlier recognition of mental disease and a more prompt application of hospital treatment, thus bringing the cases into the record, and how much to a conservation of the lives of lunatics, due to improved care, it is impossible to state. That these two factors have largely increased the numbers on the register, is certain. If we knew how much to allow for these two factors, it would be possible to state whether or not there was an increase in lunacy. Increased longevity, due largely to a lessening of infectious disorders in the young, has increased the number of those at a life period when mental breakdowns occur. In a large number of these cases the insanity is secondary to vascular disorders dependent on advancing years. Even if we grant that there is an increase in mental diseases, it by no means follows that this is due to an increased use of the brain. The study of those admitted to the asylums shows that brain-workers are not well represented among the insane, relatively to the number that pursue an intellectual occupation. This is exactly what might have been expected from a consideration of the physiology of all organs.

When the life history of a man who is said to have broken down from overwork is investigated, it is found that mental work, as distinguished from worry, has been an unimportant factor. Undoubtedly certain occupations involving great anxiety do directly conduce to breakdown of the mind. The proper use of the brain in intellectual activity tends directly toward its preservation. The use of any organ improves its circulation, and any intellectual occupation that is well within the powers of the individual may be carried to almost any limit without producing dangerous effects. Where a person suddenly has obligations thrust upon him that call for intellectual activity to which he has not been accustomed, then the danger of breakdown is very great. The athlete gradually trains his muscles for a contest. Not by at once beginning extreme exertion, but by degrees he gradually increases his tasks until what was formerly difficult becomes easy, the circulation through his muscles is improved and he becomes stronger; this process is what is known as training. Exactly the same thing takes place in the use of the brain. By intellectual activity its circulation is improved; as an organ it becomes more efficient, and if the process is not pushed too rapidly it gradually preserves the organ and explains why those who pursue an intellectual occupation are in a measure protected thereby from mental breakdown.

REPORTING BIRTHS.

A specimen of foolish medical legislation is afforded in Colorado, in the leading city of which state a number of physicians were recently taken before a magistrate and fined for not making monthly reports of "no births." THE JOURNAL previously noted this (March 3, p. 569), and had already expressed an opinion that the reporting of actual births by the physician should not be demanded without compensation, but this requirement of reporting that there have been no births goes still farther and is altogether unreasonable and ridiculous. Physicians have enough to do for the public gratuitously in many ways, without having absurd regulations of this kind forced upon them. If they can not be trusted to report births, it is hard to see how any additional accuracy is to be obtained by making them contribute their negative statistics in this line. There is evidently a lack of common sense in a law that makes such requirements, and it suggests that physicians ought to give more attention to the legislation that affects them, if indeed they can not do something for the amendment of the intellects of their legislators.

"CHRISTIAN SCIENCE" AND THE MARYLAND LAW.

In their arguments against the proposed new medical law in Maryland the "Christian Scientists" made their usual claims of superiority to such little facts as infection, contagion, etc., before the committee that has the

bill in charge.[1] According to reports their statements rather startled the legislators. One said that in a community made up of adherents to their belief, quarantine and health departments would be unneeded as disease could not exist. Another said infection did not exist, and still another that "Christian Science" could prevent contagion. Many other statements equally startling could be brought out if these and other quacks were properly interrogated before legislative committees, and the chance of their recognition in medical practice laws would be considerably diminished. It is the average legislator's ignorance of their character that makes him so open to their demands for exemption or recognition by medical practice acts. In Maryland leading physicians were on hand to combat and show up the pretenders, with, we trust, good final results.

RECOGNITION OF FOREIGN DIPLOMAS.

The State Board of Health of Nebraska has resolved to hereafter recognize no foreign medical diploma unless it is vouched for as genuine by the nearest consular representative of the country in which it is claimed to have been issued. The Board has been forced to this course by some recent impositions that have been practiced upon it, notably one where, after exposure through inquiries, the individual was cited to show why he should not be deprived of his certificate. As illustrating the character of the man, his defense is of interest. He appeared by counsel and pleaded that perjury was not a medical or professional offense; therefore the charge of unprofessional and dishonorable conduct did not stand. There is no reason whatever for medical boards in this country recognizing foreign qualifications when the foreigners do not recognize ours. When the further fact is considered that a foreign diploma does not, in the majority of cases, qualify the bearer to practice in his own country, there is still less reason why it should do so here. Taking into account, still further, the chance of its being fraudulent, as in the case mentioned above, it would seem futile to a degree to recognize these diplomas. Some boards in the country have refused to do this, and in one or two states the law admits outside diplomas as qualifications only where they are such in the state that gives them and reciprocal privileges are conceded. There is no reason why this should not be the universal practice and much why it should. It is not always more blessed to give than to receive in this particular matter of medical reciprocity. At all events, it will be well for examining boards to carefully examine credentials, and, where possible and legal, the candidates.

MENTAL DISTURBANCES OF CHRONIC PROGRESSIVE CHOREA.

The term chorea is applied to a number of disorders attended with involuntary movements, and which probably differ considerably among themselves. It would be better, therefore, if it were possible, to reserve the name chorea for that acute, self-limited disorder first systematically described by Sydenham, occurring particularly in early life, attended especially with jerky incoordinate movement, and, so far as known, unassociated with demonstrable organic lesion. Thus, the so-called chronic or hereditary chorea described by Huntington has no relation with acute chorea except in the involuntary movement. The chronic disorder further has been found to be dependent on chronic meningo-encephalitic changes, with atrophy of the cerebral convolutions. It is also, in contradistinction from acute chorea, attended with mental alterations, which are generally described to be of the nature of dementia. With this view Kattwinkel[1] takes issue, basing his contention on the conditions found in three cases carefully studied from the psychologic point of view. These observations seem to show that the mental disturbance consists rather in partial impairment of memory, and principally in want of attentiveness; and the question is raised whether they may be related to the conditions of life to which the unfortunate patients are necessarily exposed. The fact that they are commonly present in the ordinary form of chorea also would suggest that the second explanation is the more probable one.

THE RELATION BETWEEN PNEUMONIA AND PULMONARY TUBERCULOSIS.

It would naturally be surmised that lungs the seat of tuberculosis would be particularly predisposed to pneumonic inflammation, and vice versa; but the evidence that exists is, to say the least, not conclusive, and the question seems to be one worthy of more consideration than has been devoted to it, in order that a definite answer may be secured.

Philip[1] makes the statement that in his experience the supervention of pneumonia in the course of pulmonary tuberculosis is by no means uncommon, the reciprocal influence of the one disease upon the other being variable. Tuberculosis is not rarely observed in the lungs after death from pneumonia. On the other hand, in the study of one thousand cases of pulmonary tuberculosis in only .5 per cent. did there seem to be any close relation to pre-existing pneumonia. Liability to error in this connection may arise from failure to observe that a pneumonia that has been looked upon as having developed as a sequel of pulmonary tuberculosis has in reality supervened in an already tuberculous lung. In the second place, the results of delay in the resolution of the pneumonic process may be mistaken for tuberculosis. Finally pulmonary tuberculosis may set in acutely and simulate pneumonia, and if not correctly diagnosticated at the time, but recognized only later, it may erroneously be considered the product of an unresolved pneumonia.

PEPTIC ULCER OF THE ESOPHAGUS.

Ulceration of the stomach is a relatively common disorder, and is supposed to result in most cases from the digestive action of the gastric juice on portions of mucous membrane whose vitality is impaired by reason of blood-depravity, circulatory disturbances or traumatism. Usually a single lesion is present; occasionally there are several. The ulceration is situated most commonly on the posterior wall of the stomach, near the pylorus. Rarely the duodenum or the esophagus is also involved in the morbid process; while involvement of the stomach, duodenum and esophagus must be considered as unique. Such a case, however, has recently been placed on record

[1] THE JOURNAL, March 3, p. 539.

[1] Deutches Archiv. f. Klin. Med., Bd. lvi, p. 517.

[1] Practitioner, February, 1900, p. 145.

by Glockner.[1] The patient was a man, 65 years old, who had long suffered from symptoms of chronic gastric catarrh, ascribed to alcoholic excess. At the age of 58 symptoms of esophageal obstruction made their appearance, but these improved under treatment with bougies. There was no history of the swallowing of corrosive agents, nor of unduly hot food, and no evidence of syphilis nor of tuberculosis. Death occurred amid symptoms of chronic nephritis and myocardial degeneration. The autopsy disclosed, in addition to these conditions, the presence of thrombi in both ventricles of the heart, chronic mitral and aortic endocarditis, chronic deforming sclerotic and atheromatous endarteritis, with mural thrombi of the aorta, hemorrhagic infarction of the lung, multiple hemorrhagic erosions of the mucous membrane of the stomach, two peptic ulcers of the stomach close to but not involving the cardia, two peptic ulcers of the duodenum, a large annular ulcer involving the lower third of the esophagus, with three deeper longitudinal areas of loss of tissue and hypertrophy of the muscular coat of the esophagus. Microscopic examination of the stomach, duodenum and esophagus disclosed the presence of a chronic catarrhal process and a thickening of the mucous membrane, with the histologic alterations of peptic ulceration. The esophageal lesions appeared to be the earliest and the duodenal the most recent. The ulcerative process was attributed to thrombosis that was found in the respective vessels.

MENINGITIS AND MENINGEAL SYMPTOMS.

Epidemic meningitis is ushered in with a chill, pain in the back, vomiting, possible convulsions, rigidity of the neck muscles, explosive vomiting, headache, and photophobia. These symptoms furnish a comparatively significant picture and one which usually leads to a diagnosis of meningitis. The gravity of the situation is felt by the physician, and the friends of the patient are informed that the case is one of "brain fever." It is not an infrequent experience to have such a one change for the better very rapidly, just as in some other cases all of the symptoms may increase, the convulsive phenomena become more marked, the fever higher and the patient rapidly pass into a state of coma, and die with the general symptoms of cerebral compression. A remarkable variation of the severity of the symptoms in these different cases is furnished by an occasional one which comes to post-mortem examination. Here it is found that persons, who, during life exhibited the typical symptoms, were found to present not the slightest trace of this condition. It is not probable that a severe inflammation of the meninges could occur without leaving marked changes which would be apparent on close inspection. Such cases furnish a key which enables us to unravel the slight or abortive cases of meningitis which are met with in practice. In reality they are not cases of meningitis at all, but are due to irritations of the cerebral cortex due to a toxemia. Clinically, it is impossible to distinguish between such cases and those due to true inflammation of the membranes of the brain. One of the most important diagnostic points relates to the development of herpes. If such an eruption takes place on the skin, there is great probability that the disease is a true inflammation of the meninges. Another point is in relation to the development of spinal symptoms. If there are well-marked signs of involvement of the spinal meninges, it is presumptive evidence that there is an inflammation of the membranes of the spinal cord. In the absence of these and of skin eruptions, and the presence of preponderating cerebral symptoms, one can not with certainty differentiate between meningeal symptoms and those dependent on the phenomena of inflammation with pathologic exudates in the meninges. The termination of the case frequently clears the diagnosis. If the patient recovers without obvious structural change in the nervous system, the affection may be safely classed in the symptomatic group; paralysis, imbecility or a fatal termination always means a septic process with inflammatory exudate.

[1] Deutsches Archiv f. Klin. Med., B. lxvi, p. 571.

TRAUMATIC RUPTURE OF THE BILE-DUCT.

The various kinds of accidental injuries that it may fall to practitioners to treat are almost without number. While some are frequent, well-known and readily recognized, others are so rare as to be almost unique and correspondingly easy to overlook. One of the rarest is traumatic rupture of the bile-duct. It is therefore proper to note some of the more prominent features of the example of this injury recently recorded by Garrett[1]. A man, 21 years old, and carrying a beam on his shoulder, fell, striking his abdomen across the beam on which he had been standing; as he fell the beam on his shoulder glided down the back and exerted force opposite the anterior blow. Some shock followed gradually. The abdomen became tympanitic, but the tympanites was relieved by turpentin. There were no special symptoms until on the tenth day, when fluid was found to have accumulated in the abdominal cavity. Six quarts of yellowish-green fluid were withdrawn and a diagnosis of rupture of the gall-bladder made. Four days later four more quarts were removed, and again in three days. In the meantime the patient was walking about without much inconvenience. At the operation, on the twelfth day after the injury, the abdominal cavity was found again filled with greenish fluid; adhesions were present everywhere; the gall-bladder was empty and retracted; a rent was found "at the back of the upper part of the common bile-duct;" a funnel-shaped tract down to the foramen of Winslow was walled off with gauze. No attempt was made to suture the tear. At first the wound gave exit to large quantities of bile; the stools gradually acquired their natural color and perfect recovery with definitive closure of the wound took place. Walter Spencer has reported a rupture of the common duct in a boy, run over by a hansom-cab. Progressive emaciation and jaundice developed; death occurred on the thirty-third day, and the autopsy revealed the duct torn off near its entrance into the duodenum. Miles F. Porter studied a case that came under his observation on the thirtieth day after the accident. Ten pints of dark-colored bile were evacuated through a median incision; two tubes were inserted; the patient continued to fail and died forty-eight days after the injury. Post-mortem showed a

[1] Annals of Surgery, 1900, xxi, 227.

complete division of the bile-duct at about its middle, and a large subdiaphragmatic abscess. Kernes has recorded a case in which a laparotomy was made, the peritoneal cavity cleansed and closed and in spite of pulmonary complications the patient completely recovered. It is noteworthy that peritoneal infection does not take place readily in this interesting form of injury, thus giving the surgeon good opportunity to do what can be done to secure the re-establishment of the biliary passages. It is quite evident that the sooner this can be done the more promising the outlook. Undoubtedly an experimental surgical study of rupture or division of the bile-duct would throw some light on the process of reunion of the severed duct and the best method to secure union.

RIGID SPINE.

This peculiar symptom-complex has been variously termed rheumatoid arthritis of the spine, spondylose rhizomélique, etc., and is a fixation of the vertebral segments. In the moderate degrees of this affection, the patients move with their back "all of a piece." In stooping, it may be accompanied with some movements of the hips, but usually it is a flexion of the knees and not a bending forward at the hips. At first, certain segments of the spine, notably the lumbar and cervical regions present the most marked limitation of motion. Gradually these become fixed and sometimes extension and flexion of the head are impossible. Usually, however, this last movement is retained, but there is some limitation to rotation of the head and practically little or no movement between the segments of the vertebræ. A careful study of these cases has revealed a varying pathology. In some the bodies of the vertebræ are affected, in others the intervertebral fibrocartilages. Spiculi of bone are seen growing from the body of one vertebra to that of another, so that the spine is locked by a bony union in a firm ankylosis. The position of the spine may be erect on the hips when in this position, or, what is more frequent, the body is stooped forward and the patient is unable to assume an erect position. In extreme cases the body may be carried forward at almost a right angle, the patient walks with difficulty and his condition is most unfortunate. It is only when we meet with marked cases of this disease that a diagnosis is made, but without question, a large number may be found in whom the condition is not marked. It is attributed to advancing changes in old age, or the frequent diagnosis of rheumatism is made. One of the most striking peculiarities of this disease is its presence in cases in which the bones are not involved. In all varieties the movements of the ribs and of the extremities remain quite free. In other cases it seems to be associated with the ordinary rheumatoid arthritis, and to be an expression in the vertebræ of a process similar to that found in the extremities. An analysis of the cases so far published would show that they fall into three fairly-well-marked groups. In one we have symptoms similar to those grouped under rheumatoid arthritis, and other joints, particularly those of the hands and toes, are involved at the same time. A second group includes those cases in which the interarticular fibrocartilages are involved, or in which spiculæ of bone connect adjacent segments. A third, and perhaps the most interesting class, comprises those in which there is found, during the patient's life, the marked symptoms of bony ankylosis in the vertebræ, yet at the post-mortem no changes can be noted in the bones, cartilages, or ligaments of the spine. This group seems to belong to the purely nervous affections; the exact changes in the nervous system have not been determined.

SPECIFIC TREATMENT OF DIPHTHERIA.

While there can be no doubt of the therapeutic utility of the antitoxin in the treatment of diphtheria, this specific remedy is susceptible of still more extensive use than it has as yet been submitted to. Although the preparation is a comparatively expensive one, this fact should weigh lightly against its life-saving properties, and in many large cities even the poorest need not want for it, as it can be secured gratuitously from public laboratories for use in needy cases. The time has come when failure to use the antitoxin in the treatment of diphtheria must be considered no less malpractice than omission to practice vaccination as a prophylactic against smallpox, to use mercury and iodin in the treatment of syphilis, quinin in the treatment of malaria, salicylates in the treatment of rheumatism and atropin in the treatment of opium poisoning. The successful results reported from all parts of the world are merely corroborated by the results obtained in Australia, as exhibited in a communication on this subject by A. Jefferis Turner[1]. From carefully kept records of the Brisbane Children's Hospital, it appears that from July, 1889, to January, 1895, before the employment of the antitoxin was inaugurated, there were 303 cases of diphtheria received, among which 128 deaths occurred—42.2 per cent.—while from January, 1895, to August, 1899, there were 317 cases received, among which 40 deaths occurred—12.6 per cent. The results were less favorable in the earlier part of this latter period than in the later part, because small doses of weak serum were employed, but the results were better than they had been previously without the antitoxin. With increasing experience it was found that in mild cases seen early, from 600 to 1000 antitoxin units suffice, but in desperate and advanced cases, from 4000 to 8000 and even 12000 may be necessary. The mortality among 147 laryngeal cases treated prior to the antitoxin period was 59.2 per cent—87 deaths—while among 177 cases of the same class treated since the antitoxin has been employed. the mortality was 18.6 per cent.—33 deaths. Of the former, recovery occurred in 8.4 per cent.—12 cases—without operative intervention, of the latter in 38.4 per cent.—68 cases. Among 166 cases requiring intubation or tracheotomy or both during the pre-antitoxin period, there were 109 deaths—65.7 per cent.—while among 109 requiring the same procedures during the antitoxin period, there were 31 deaths—28.4 per cent. A summary of these results may be expressed as follows: Of 100 cases of diphtheria with laryngeal involvement treated before the use of the antitoxin, recovery ensued in eight without operative intervention, and in 33 after intubation or tracheotomy, and death occurred in 59; while of the

[1] Intercolonial Med. Jour. of Australia, Dec. 20, 1899, p. 585.

same number of cases treated with the antitoxin in sufficient dosage, recovery ensued in as many as 40 without operative intervention, and in 45 after operation, and death occurred in only 15. Statistics like the foregoing would be wearisome repetition were there not a gradually diminishing few who remain unconvinced of the efficacy of diphtheria antitoxin, and a somewhat more considerable number who do not use this powerful therapeutic agent with the constancy it deserves and in doses sufficient to insure the best results.

PATHOLOGY OF TABES DORSALIS AND GENERAL PARALYSIS.

There is probably no question of modern neurology so encumbered with the weight of a superimposed pathologic structure built by many investigators as this of the essential lesions of tabes dorsalis and general paralysis of the insane. A few months only have gone by since Biswanger, who had made a careful examination of a large number of brains of persons dying of general paresis, announced that he believed that characteristic microhistologic changes pathogenic of this condition did not exist, while on the other hand Bevan Lewis, in the new edition of his text-book on mental diseases, reprints without much change the cut and dried opinions that have served the student of psychiatry for the past ten or fifteen years. In a recent discussion before the London Pathological Society[1], Dr. F. W. Mott presented a communication on this subject, which was widely discussed by most of the prominent London alienists and neurologists. He confined his remarks more particularly to that group of cases in which the coexistence, sooner or later, of tabes and of general paresis, is to be found. In many of such, the tabes is known to begin with mental symptoms, or cerebral disturbance develops during an attack of one of its crises; again a certain number of cases of general paresis show symptoms of tabes during life, and on autopsy yield the typical pathologic pictures of posterior sclerosis. Those of still another class begin as tabes and ultimately develop general paresis. Inasmuch as there are these interrelated syndromes which occur so frequently, and since in certain particulars the diseases show analogous forms, Mott has come to the interesting conclusion that pathologically the disease processes are identical. He believes that a progressive degeneration of the neuron with secondary sclerosis and inflammatory or sub-inflammatory conditions in the vessels or adjacent membranes is always to be found due to irritation caused by the products of degeneration, and a formative proliferation of the neuroglia elements. In tabes the degenerative process affects the first or afferent—the sensory—neuron almost exclusively, and the degeneration in the posterior columns is secondary, and corresponds, when complete, with that obtained by cutting the posterior roots. In general paresis the terminal neurons, those in the cerebral cortex, are degenerated. With reference to the syphilitic origin of these diseases, the opinion is expressed that whereas it was probable that syphilis was the most important element in their production, it was also certain that some cases did originate in patients who had had no syphilitic infection.

[1] The Lancet, Nov. 25, 1899

Medical News.

DR. THURSTON SMITH, Bloomington, Ind., will go to the Philippines as acting assistant-surgeon, U. S. A., with rank of first lieutenant.

THE NEW County Insane Asylum, Bridgeton, N. J., will be opened April 1. The patients of Cumberland County, now at Trenton, will be transferred to this new building.

CHARLES R. BARDEEN, A.B., Harvard, 1893; M.D., Johns Hopkins, 1897, assistant in anatomy in the Johns Hopkins Medical School, has accepted the appointment of professor of anatomy in the University of California.

DR. ALFRED REGENSBURGER, professor of dermatology in the College of Physicians and Surgeons, San Francisco, has left for Paris, where he will attend the International Convention of Dermatology and the Congress of Medical Jurisprudence late in the summer.

SIR WILLIAM MACCORMAC, president of the Royal College of Surgeons, who went to Africa at the beginning of the Transvaal War, as consulting surgeon, sailed for England on March 3. No reason is given, in the dispatches, for this action at the time it would seem his services were most needed.

DR. GEO. F. BUTLER, Chicago, will assume charge of the Alma Sanitarium, Alma, Mich., May 1, succeeding Dr. E. S. Pettyjohn, who resigns the superintendency. He will spent a year in rest and medical study abroad. Dr. Butler will continue with his work in the College of Physicians and Surgeons.

MARCEL BAUDOUIN, who some years ago founded the Institut de Bibliographie at Paris, now supplements this by publishing a monthly record of current medical literature, the *Bibliographia Medica,* "modeled on the *Index Medicus,* of which it will continue the scientific traditions" with certain improvements. The *Bibliographia* is to contain four thousand titles at least, in its eighty pages each month, and the subscription is $12 a year. The first number appeared February 15.

CARE OF SMALLPOX PATIENT.—A physician living at Lawrence, Mass., who recently cared for a patient with smallpox in a house belonging to the former, has presented a bill to the Board of Health for $10,153.30, itemized as follows: injuries to practice, $1500; medical services, $600; board, $108; board of nurse, $105; special cooking, $168; bedding and furniture destroyed, $56.50; loss of income, $600. The sum of $7500 is asked for the use of his house.

PILGRIMAGES FORBIDDEN.—The Russian Government has forbidden the annual pilgrimage to Mesopotamia, as the plague is known to exist in the provinces of Assyr and Yemen in Arabia, and sporadic cases at Mecca and Djeddah, while it is raging in India with greater intensity than ever. Cholera also has appeared in Arabia, but no other government has interfered to put a stop to the annual pilgrimages. The stream of pilgrims is already numerous. The *Sem. Med.* states that over nine thousand had crossed the Suez Canal on the way to Mecca by Dec. 31, 1899, and the movement is still at its height.

PRICE OF DRUGS AND THE WAR.—According to newspaper reports, on account of the war in South Africa, and partly also it may be from some commercial enterprise, the price of drugs has lately taken a great advance. Cocain, quinin, aqua-ammonia, fluid extract of ergot and iodid of potash, for all of which there is constant demand, have advanced in price, some of them

more than double. Carbolic acid has almost doubled in price; this is said to be due to its demand for the production of explosives, which has diminished its export from Great Britain. The advance in these drugs has favored the general advance in others. The Chicago druggists deny the above statements, which come through the New York papers, as to the increased price of drugs at the present time.

DEATH UNDER "CHRISTIAN SCIENCE."—Another case has been added to the already not inconsiderable list of deaths that have been attributed to parental ignorance or blindness and "Christian Science" treatment. The victim this time was the 13-year-old daughter and only child of a real estate dealer living in Jersey City, N. J. The child was ill with typhoid fever, and for a time was attended by two physicians and two trained nurses, but when the physicians refused to say positively that they could cure the child, the parents were persuaded to call to their aid some members of the First Church of Christ. These people proceeded to stop all medicines, and all food except what the child would take voluntarily, and spent their time in sitting in the back parlor "treating the child through the mother." Finally the nurses thought they detected faint signs of improvement, and besought the mother to recall the physicians. The mother consulted her "Christian Science" friends, with the result that the nurses were rebuked for having bothered the mother. After having lain for five days without nourishment or medicine, the little one died, and the physicians formerly in attendance very properly refused to make out a death certificate. The case was brought to the notice of Health Inspector Benjamin, who decided that the City Board of Health had no jurisdiction, but thought the matter might be reviewed by the county board.

PROGRESS OF THE PLAGUE.—The *British Medical Journal* of February 24 reports that 7 cases of plague have occurred in New Caledonia with 4 deaths, among whites, and 27 cases with 14 deaths among the Chinese and Kanakas. The disease was not recognized until Dec. 27, 1899, but is limited to one quarter of Noumea. Danger of infection is great on account of frequent communication by steamer between this port and the Australian colonies. No cases of plague have occurred in Oporto, Portugal, since January 16. In India, on February 6, the deaths in Bombay numbered 408 from all causes, the worst previous record for one day being 392. During the first week of February the deaths from plague declined from 478 to 391, this being the first decline recorded since the week ending Nov. 3, 1899, but it is probable that there was incorrect registration and the decline only an apparent one. In Mauritius, during the week ending February 15, 7 new cases of plague occurred and 7 deaths. The disease has entirely disappeared from the capital of Madagascar, where, from the outbreak, July 23, 1899, 52 cases occurred and 39 deaths, only one being a European. The plague continues to exist at Santos but is not severe. According to reports brought by the *Aorangi*, which arrived at Victoria, B. C., March 1, from Honolulu, three new cases of plague were reported there February 19, the first in ten days—two days before she sailed. The latest advices indicate that the plague has reached the United States from Honolulu. It is announced that the disease which was thought to be beri-beri, which found 17 victims on the Japanese steamer *Nanyo Maru*, has turned out to be the bubonic plague. This is denied, however, and it is evident that as yet the nature of the disease is doubtful. A case of supposed plague has been reported in Chinatown, San Francisco, but this, too, is denied, and is yet in doubt. The steamer *Kilburn*, from Rosario, Argentine Republic, with 3 cases of bubonic plague on board, is reported to have arrived at Cape Town, South Africa. In Calcutta, the disease is said to be on the increase, 411 deaths having occurred during the past week. Buenos Ayres has also a number of cases officially reported.

MEDICAL SERVICE IN THE TRANSVAAL.—The Princess Christian Hospital, a recent gift to the British Government, is being shipped from Southampton to South Africa. It will have accommodation for 100 beds, with operation, nurses', bathrooms, etc., and is of corrugated iron, to be hung inside with greenish-tinted canvass. A Roentgen ray apparatus and all the latest inventions for localizing foreign bodies accompany the other fittings for the operating-rooms, according to *The Lancet* for February 24, which also contains further news from Sir William MacCormac and other war correspondents. He describes the medical arrangement of General French's forces, as they were at Rensberg, where there was a complete field hospital fed by two half field hospitals, one at each flank of the forces. He says that the Boers had two very good hospitals at Colesberg, one a railway station, the other a church. A writer in the *British Medical Journal* of the same date describes "gutter" wounds of the skull. In these the skull is grazed to a greater or less depth but the wound heals rapidly and the grooving of the bone easily escapes detection. However, when the skull is even lightly touched there is liable to be a fracture of the internal table, and trephining for following cerebral symptoms reveals more marked underlying damage than was expected. Helmets worn by the men seem to afford considerable protection. Of the 508 deaths from disease in South Africa at the time of the writing, 240 were from enteric fever.

PENNSYLVANIA.

BY THE will of Emma E. Ramage $300 has been left to St. Joseph's Hospital, Reading, and $200 to the Reading Hospital.

MEDICAL STANDARD IN PENNSYLVANIA.

After a conference, held in Harrisburg, Pa., February 26, the following resolution was adopted regarding the standard required by the State Medical Council of Pennsylvania: "*Resolved*, That in the judgment of the Council, when the medical course of a literary course as proved by the examination of the student by the medical college, covers the entire work of the first year of actual medical study, such course may be accredited by the medical college as the first year of medical study prescribed by law."

Philadelphia.

DR. BENJAMIN LEE has been appointed Sanitarian of the State Board of Agriculture of Pennsylvania.

BY THE will of Anna Bethary $1000 has been left to St. Mary's Hospital.

IT IS announced that a site has been chosen for the Children's Hospital of Germantown. The place selected is on Price Street above Evans.

A MAN has been arrested and placed under $500 bail for promiscuous advertising of obscene matter. He had seven carriers distributing pamphlets advertising a proprietary nostrum.

A MEETING of the Board of Directors of the Pay Hospital for Contagious Diseases has been held and a site chosen. The sum of $700 was realized at the Bohemian tea recently given by the officers of this hospital,

A COMMITTEE of students from the Woman's Medical College of Pennsylvania have sent a signed petition to the mayor, asking that members of that college be appointed to positions on the Examining Board of the Philadelphia Hospital (Blockley).

AS A result of competitive examinations of the Philadelphia School of Anatomy, the first prize was awarded Dr. William I.

Thompson of Asbury Park, N. J., for the best paper on anatomic work. The second was awarded Dr. William Machado of Jamaica, for the best practical work done in the school.

COUNCILS' Finance Committee has determined to practice filtration. It will be in a small way at first, and will be put in operation in every public school of the city; $35,000 has been appropriated for that purpose. This is supposed to be only a preliminary step in the inauguration of larger plans for the filtration of the city's water-supply.

WOMAN'S HOSPITAL.

The patients in the hospital on Jan. 1, 1899, numbered 53; admitted in 1899, 985; treated in 1899, 1038; treated in different clinics, 5425; visits to clinics, 20,496; new cases visited at home, 848; visits to patients at home, 3937; births in the hospital, 205; operations, 690; prescriptions, 28,369.

MORTALITY STATISTICS.

The number of deaths occurring during the past week was 569, an increase of 151 over those of last week, and an increase of 30 over the corresponding period of last year. The principal causes were: apoplexy, 27; nephritis, 45; cancer, 11; tuberculosis, 66; diabetes, 2; heart disease, 49; influenza, 3; appendicitis, 2; pneumonia, 96; peritonitis, 10; rheumatism, 2; septicemia, 6; suicide, 3.

MONEY FOR HOSPITALS.

ACCORDING to the promise of Congressman Joseph C. Sibley of Pennsylvania, that he would divide his salary for his two years' term among the five hospitals of his district, the projected hospital at Franklin has received $1000, and a similar amount went to hospitals located at Oil City, Warren, Bradford and Kane. At the end of his term each hospital will have received $2000.

LECTURES.

A series of "Emergency" lectures for the benefit of the Cuban Orphan Society will be given in this city at an early date, as follows: "The Care and Nursing of Fever," by H. A. Hare; "Practical Bacteriology," by D. Braden Kyle; "Immediate Treatment of Some Emergencies," by Edward Martin; "Poisons, Their Antidotes and Treatment," by J. A. Scott; "Common Disease of the Ear, Nose and Throat," by Ralph W. Seiss; "Hygiene of the Eye," by George E. de Schweinitz.

TRAINED NURSES.

An active effort is being made among trained nurses of this city, to have Congress pass a bill providing for the employment of graduate women nurses in the hospital service of the United States Army. The Alumnæ Association of the Pennsylvania Hospital seems to be at the head of the movement. A ten weeks' course for training nurses has been established by the Philadelphia Nurse Supply and Medical Dispensary, to give instruction, to young women, in the practical details of nursing, and to offer to mothers the opportunity of obtaining that information to the best advantage. Diplomas will be issued to those who comply with the requirements. The opening lecture will be given by J. Madison Taylor, March 19. Other lecturers are J. Chester Morris and J. W. O'Neill.

NEW YORK.

A BILL appropriating $82,000, for improvements at the Craig Colony for Epileptics, has been passed in accordance with the recommendation noted in these columns last week.

QUARANTINE POWER.

The assembly has passed a bill extending the powers of the Health Officer of the Port of New York. The act is designed to remove a hitherto existing conflict of jurisdiction between the quarantine commission and the health officer, and clearly defines the powers and duties of the latter. More discretion than he now possesses in dealing with persons and vessels placed in quarantine is given him, and infectious, as well as strictly contagious diseases are placed under his supervision. Special powers are conferred in regard to vessels arriving which have on board persons suffering from bubonic plague. It is also provided that the incarcerated remains of persons who have died of infectious or contagious diseases shall be kept by the health officer until claimed by relatives or friends.

INSPECTION OF SOCIETIES.

Governor Roosevelt has openly expressed himself as in favor of a proper law which will empower the State Board of Charities to visit and inspect the various societies for the prevention of cruelty to children. He does not, however, intend giving this Board the power to supervise such institutions and make regulations for their government. The bill now before the legislature, which is expected to accomplish this result, is the one drawn up by William R. Stewart, president of the State Board of Charities. As usual, Commodore Elbridge T. Gerry has appeared, to oppose the measure with all his might. The very eagerness and persistency of his opposition would seem to most people to be an argument in favor of the legislation asked for.

New York City.

PLANS HAVE been filed for a new building, to cost $40,000, and to be erected by the city on Blackwell's Island, as a nurses' home.

A RECENT graduate of the Long Island College Hospital is an Austrian prince—Dr. Francis Auersperg. He has been living in New York City, but has just been appointed to the staff of the Bayonne Hospital.

INSANITY FROM "CHRISTIAN SCIENCE" TREATMENT.

In a communication that has been addressed to the Department of Charities, a physician of Brooklyn certifies that Rachel Kropnitzky, 15 years of age, is suffering from acute religious mania due to the influence of a "Christian Scientist," who attempted to cure her of deafness. The girl has been deaf for several years, and after treatment without satisfactory results, by a number of private physicians and at various hospitals and dispensaries her parents were induced to take her to one Julia Benjamin, a "Christian Scientist" healer living in the Borough of Manhattan. According to the statement of the mother, some ten visits were paid at the office of the alleged healer, who charged her $1 a visit. While undergoing the treatment she developed signs of mental aberration, and finally became violently insane. Prosecution will follow.

CONDITION OF DURYEA.

Once more there is new hope aroused in those who have so steadfastly watched at the bedside of Walter B. Duryea, the young man who fractured his cervical vertebræ while diving in shallow water last August. It was reported some weeks ago that in spite of the operation done last September, and the encouraging improvement noted soon afterward, the patient was steadily sinking, and must soon yield to the inevitable. It is now announced that one week ago Sunday he was able, for the first time, to sit upright and propel himself in an invalid chair, and that the attending surgeon, Dr. Robert Abbé, considers his condition better than at any previous time since the accident.

A LEPROUS PASSENGER.

The medical officers at the immigration bureau detected, among those passing before them, a case of leprosy in a young man who had just come from Bridgetown, Barbados. He is a quadroon, and, according to his own statement, was unaware of the nature of his malady. He said that he had had some skin affection for several months, and had been told by several physicians that it would disappear if he went to a colder climate. It was his intention to go to Canada. He was sent back to the steamer to be returned home.

FASTING FOR HEALTH.

Mention was made recently in THE JOURNAL of the self-inflicted fast of a feed merchant of this city. He fasted thirty-five days, i. e., from January 22 to February 26, during which time he drank, on an average, three pints of water daily, but abstained from all food. His object was to reduce his weight and improve his general health, and he stated at the outset that he would break his long fast as soon as he began to feel extremely hungry. When he broke his fast he began by taking two oranges, two-thirds of a cup of beef tea, half a cup of ordinary tea, five crackers and a dozen oysters. With the exception of the first two or three days of his fast he did not feel intensely hungry. He has been watched with much interest by Dr. Frank B. Carpenter and Prof. R. Ogden Doremus. His weight at the commencement of the fast was 207, and at its completion 164 pounds At the beginning his chest measure was 43½, and at the end 38 inches. He says that he feels vastly better than before undertaking this prolonged abstinence from food, and this was also his experience in a somewhat shorter period of fasting which he imposed on himself about one year ago.

MARYLAND.

AN ATTEMPT is being made to emasculate the medical practitioners' bill, now before the legislature, by exempting the graduates of Maryland colleges from examination by the State Board of Examiners. It is sad to say that the opposition seems to come from one or more of the colleges.

THE PHARMACY bill, as reported by the Committee on Hygiene to the House of Delegates, allows the sale of patent medicines by merchants, and the registration as assistant pharmacists of persons who have had two or more years' practical experience in pharmacy.

THE LUNACY bill—the features of which were mentioned previously in these columns—will not, it now appears, pass. Its chief objects were to provide greater protection for the insane in their commitment to hospitals and to place the insane of the state more under the control of the lunacy board. The objection was chiefly based on the alleged publicity of commitment to which the law would lead.

Baltimore.

RECENTLY Drs. Howard A. Kelly, William Osler, William H. Welch and W. S. Halstead, of the Johns Hopkins University, were elected members of the Washington Academy of Sciences.

UNDER THE new charter of Baltimore, a vaccin physician is allowed to every two wards, so that it is now necessary for the new health commissioner to drop ten of the twenty-two present city vaccin physicians.

DR. JAMES BOSLEY has been appointed health commissioner of Baltimore, with a salary of $3500. Dr. C. Hampton Jones, the late commissioner, becomes assistant commissioner, with a salary of $2000.

THE COMMITTEE of the Maryland Public Health Association, having the matter in charge, has decided that the memorial to the late Dr. George H. Rohé shall be a bronze protrait tablet, to be set up in the building of the Medical and Chirurgical Faculty. A Rohé alcove will also be established in the library, to be devoted to works on hygiene.

ILLINOIS.

DR. J. L. SHEPARD, Galesburg, starts for Manila, April 1, as surgeon in the United States Army.

THE EVANSTON Woman's Club has petitioned Congress to establish a department of nursing in connection with the army and navy.

Chicago.

THE MEDICAL inspectors of schools have examined 4079 pupils, and of that number excluded 248 because of the danger of infection.

TEST IS to be made in the courts, of the Board of Education's regulation that pupils who have been absent from public schools more than four days shall not be readmitted without a medical examination by one of the board's inspectors

THE TOTAL mortality during the past week was 537. This is practically the same as the week previous, and thirty less than the corresponding week of 1899. Pneumonia and bronchitis show a marked increase, due to the extreme severity of the weather.

DR. ARTHUR R. REYNOLDS, commissioner of health, recently addressed a letter to the surgeon-general of the army, relative to the danger of importing bubonic plague by bodies shipped from the Philippines, and suggesting that such shipment be discontinued until the plague ceased to exist in the islands.

AN EX-CONGRESSMAN here recently secured a divorce from his wife on the grounds, as reported, that she believed in faith cure. He claims that she was so engrossed in this "cure" that she neglected to give him the attention she should have. The suit went apparently by default, no opposition being made by the defendant.

IOWA.

THE PRENTICE bill, which was to turn over the entire management of the Cherokee Asylum for the Insane to the Homeopaths of the state, failed to pass the Iowa legislature, 53 to 37.

THE IOWA Methodist hospital people have purchased, in Des Moines, the Callahan College Campus, of about eight acres, for $50,000, and propose to put as much more in in changing the old buildings and in other modern hospital ones.

THE WORLD'S Medical Congress and Paris Exposition Excursion, under the auspices of the Iowa State Medical Society, as planned by its secretary, Dr. J. W. Cokenower, Des Moines, is proving very popular, and many have secured transportation on the chartered *City of Rome*, which leaves New York June 30.

IOWA SHARED with her sister states in the smallpox scare, but fortunately only a few towns had any cases and, owing to strict quarantining, the disease did not spread and no deaths were reported. Youngstown, a small mining village four miles east of Des Moines, seemed to have had the most cases, yet all patients convalesced and quarantine will soon be removed.

TWO IMPORTANT amendments to medical bills are now pending in the legislature, one to prevent medical local, or itinerant, "quacks" from sending their agents over the country securing notes for "sure cures," etc., and the other to amend and to put in force the "five year" act which was passed a few years ago.

COLORADO.

Denver.

ADDRESS BEFORE DENVER AND ARAPAHOE MEDICAL SOCIETY.

In addition to the usual papers, "addresses" are now given at each meeting of the Society, on some important topic in medicine. They are limited to twenty minutes each and are not followed by discussions. This innovation has found favor with the profession. Two meetings were held in February, and the following addresses delivered: "Physiology of Digestion," by Dr. C. B. Van Zant; "Indigestion," by Dr. E. P. Hershey; "Notes on Fractures," by Dr. C. A. Powers, and "Practical Methods of Detecting the More Common Pathogenic Bacteria," by Wm. C. Mitchell.

A SCHEME EXPOSED.

One of the prominent daily newspapers in this state proposes to issue a work, entitled "Fifty Years of Medicine and Surgery in Colorado," to be published by subscription, and is circulating the prospectus among physicians, asking their indorsement of the project and getting subscriptions. As it has been represented that the work is in the interest of the profession of Colorado, the matter has been taken up by the Denver and Arapahoe Medical Society, and its Board of Censors has investigated it and reports that the scheme is a purely commercial one, which, in the form proposed, would be of little authoritative value to the public and of none to the profession, while the biographic portion, by including those outside the so-called regular profession, and being personally laudatory, would certainly depreciate the profession of the State in the estimation of the profession at large. Since the work already has the qualified personal indorsement of a number of Denver men, which may lead to the impression that it has the sanction and approval of the general profession here, the Society deems it proper to inform those interested of its adverse opinion, and to say that it has advised its own members to withhold their indorsement and not permit their biographies or portraits to appear in it.

NO SLOT TELEPHONES.

The nickel-in-the-slot-telephone has been introduced lately into all drug stores. The physicians compose the bulk of subscribers to the telephone company, and yet patients and physicians were deprived of the means of intercommunication unless five cents were deposited in the slot. The county medical society appointed a committee to interview the manager of the company, and no toll will be exacted in the future from patients calling physicians, or from physicians communicating with them.

HISTORY OF THE DENVER AND ARAPAHOE MEDICAL SOCIETY.

This society has decided to celebrate its 30th year of existence in 1901. Dr. C. K. Fleming, the president of the Society, appointed a committee consisting of Drs. C. D. Spivak, W. P. Munn and W. C. Mitchell, to go over the records of the Society and to arrange and prepare for publication such historic data as will throw light on the growth and progress of the Society.

VICTIMS OF "CHRISTIAN SCIENCE."

During the last few months the daily press has reported several deaths among the followers of "Christian" and "Divine Science," who have refused to be treated by physicians. The health commissioner fears that the death-rate of Denver, hitherto known to be the lowest in the country, will increase in an alarming ratio. That the public at large may be able to

judge whether this increase in mortality is due to improved sanitation or to "Christian Science," it is understood that henceforth a separate account will be kept for the burial permits given. According to the calculation of a prominent insurance man, if the "Scientists" continue to treat themselves, their clan in Denver will disappear from the face of the earth within the last remaining months of the nineteenth century.

CANADA.

THE GRADUATES in medicine from McGill, Montreal, in British Columbia, will give a scholarship of $100 a year to their alma mater.

DR. H. L. DICKEY, Charlottetown, P. E. I., has been appointed to the eye, ear, nose and throat department of the Charlottetown Hospital.

CANADIANS drank more and smoked less in 1899. Of tobacco, 20,490,062 pounds were consumed, compared with 17,562,735 pounds in 1898. Of liquors there were produced 3,443,965 proof gallons as against 1,753,186 for the previous year. The ratio is struck at so much per head.

THERE IS considerable excitement in New Brunswick over the vaccination of children. One child died after being vaccinated, and the statement is being circulated that there was something wrong with the vaccin given out by the Board of Health.

DR. CHARLES A. PETERS, McGill, '98, has received an appointment on the medical staff of the British forces in South Africa. He graduated with honors and served as resident house physician in the Montreal General Hospital.

THE VICTORIAN Order held its annual meeting in Ottawa on the 1st. It was decided to withdraw the four nurses allotted to the Klondike. During the past year two local branches have been established in Hamilton, Ont., and St John, N. B., and besides this, eight district committees organized.

DR. N. E. MACKAY, Halifax, N. S., has issued a short but succinct circular to the citizens of that city on the infectiousness of tuberculosis, its treatment, and the means necessary to prevent its spread. As chairman of the city board of health, he is pushing an aggressive "campaign of education" in regard to this disease.

ADVERTISING ABORTIFACIENTS.

The following is given as a sample of pernicious advertising in the lay journals:

> MARRIED WOMEN.—If you are irregular or troubled with suppression, write to MRS. * * * Bridgburg, Ont., and she will send you the formula that will relieve the worst case in two to five days. No pain. This receipt has brought happiness to hundreds of anxious women.

For some time past this, like similar advertisements, has been running in the columns of local papers throughout Canada, which claim to be respectable, boast of large circulations, and set themselves up as models of rectitude and propriety for an enlightened and intelligent public to emulate. Just how close to the wind these journals are sailing as regards complicity in crime, physicians can readily appreciate, and this flagrant debasement of the boasted power of the press is a sad commentary on intellectual progress. The nauseating display of the "cures" for gonorrhea, syphilis and lost manhood, daily paraded in our public press to the gaze of all, women and children as well, should surely call for strong and emphatic protest from medical men, and medical journalists in particular. The commercial instincts of the daily press which seem to connive at crime and debauchery through such reprehensive methods are incentives to unchastity and disgrace; and a well-organized crusade should be at once inaugurated by medical journalists against these disgraceful and disgusting advertisements.

MONTREAL'S DECREASING BIRTH-RATE.

The new city council, Montreal, immediately on its inauguration began to look into the health of the city. The searchlight was turned on the Health Department, and it was found that since 1896 no returns have been prepared, nor reports made, of the workings of this department, and the laxity in this respect has been causing considerable comment among the new members of the council. In 1872, the population of Montreal was 120,759, and it has gone on increasing until last year it numbered 280,251. The death-rate per 1000 for all those years is interesting reading. Commencing with 1872 and ending with 1899, it was as follows: 27.36, 39.03, 36.23, 33.33, 34.26, 35.05, 30.51, 27.43, 26.90, 27.18, 27.12, 25.60, 26.74, 46.71, 25.36, 27.96, 28.86, 26.60, 24.80, 24.24, 24.49, 24.96, 27.27, 24.81, 21.92, 22.48, 22.94, 22.04. In 1876, with a population of 133,000, there were 6558 births, or 49.53 per 1000 of the population. In 1884, with a population of 162,959 there were 6728 births, or 41.28 per 1000. Since that year the birth-rate has been as follows: 37.62, 45.37, 43.63, 42.91, 41.33, 40.09, 43.87, 42.05, 43.53, 44.25, 40.38, 37.40, 34.76, and in 1898, with a population of 272,089 there were 9455 births, or a birth-rate of 34.76 per thousand. During the past three years, in Montreal, eleven persons who died over 100 years old were, with one solitary exception, all females. It is further stated that between the ages of 70 and 100 years, more women die than men. In endeavoring to account for the decrease in the birth-rate, the medical health officer thinks that in cities where the struggle for life is hard, there is a growing tendency on the part of the masses of the population not to have large families and that this may be the cause of the decrease. The marriage-rate is also on the decline. In 1880 it was 10.52 per 1000, while in 1896 it was 7.40, and in 1897, 7.13, and in 1898, 8, and this with an increasing population. The new health committee intends to see that these reports be completed promptly in the future and that there will be no more running behind for three years.

MONTREAL'S NEW HEALTH BOARD.

It is the purpose of the new Board of Health of Montreal to make an enviable record for themselves during the current year. Regulations have been adopted and will be strictly enforced: Concerning the inspection of milk and the prevention of the sale of an adulterated article. Concerning the injurious adulteration of food products, and, providing for the seizure and confiscation of unwholsome foods. Concerning the inspection of the drains and sanitary arrangements of houses in course of erection, and for the condemnation and removal of defective plumbing. For the closing up of buildings no longer fit for human habitation. For the inspection of schools, manufacturing establishments, and "sweat shops," and for the improvement of the sanitary conditions therein. Concerning contagious diseases, and the punishment of doctors and others who hide such cases. For the eradication of nuisances that are harmful and dangerous to the health of those who live in the neighborhood of them.

THE WEEK AMONG THE MEDICAL STUDENTS.

There is probably not a medical college in all Canada, with the single exception of the Woman's Medical College in Toronto, which has not its representatives at the front; and when the stirring news arrived on March 1, that Ladysmith had been relieved, lectures were completely abandoned, and all forsook their books, to go out and parade and cheer for Queen and country. In Toronto the students from all departments of the several universities took possession of the streets, sang patriotic songs, marched to the law courts, the city hall and the legislative assembly, demanding patriotic speeches from all celebrities whom they chanced to meet. In the latter institution they invaded the chamber of the House when in session, headed by a brawny Scot with his bag-pipes, playing "Cock of the North," and on the adjournment of the house, proceeded to make laws for the province. In Montreal, however, the celebration and jubilation seem not to have been so congenial between the students from McGill and French Laval.

Correspondence.

Our National Department of Health.

PEMBERVILLE, OHIO, March 6, 1900.

To the Editor: For a long time past I have noticed in our professional journals letters and reports of remarks made on the subject of a proposed national board of health to be established as an individual cabinet department. All these have been of considerable interest to me and, although the majority evince a deplorable ignorance of the public health functions even now being exercised by our Government, they are nevertheless a source of great satisfaction in that they show an awakened interest in the profession in this, our most important and altruistic duty to our land.

It is quite evident that but a very small minority of our professional brethren are informed as to the existence of the U. S. Marine-Hospital Service, and apparently a still smaller number are at all acquainted with the scope of its usefulness or with the fidelity with which it has performed its many diversified duties. Yet, perhaps this is not altogether unwarranted, for it has always been characteristic of this department to perform its duties without the blare of trumpets or a display of pyrotechnics to compel the attention and plaudits of an unheeding public. It is, therefore quite probable that when, during our late yellow-fever outbreaks and other threatening epidemic invasions, reports from marine-hospital officers were noted in the journals, the readers thereof assumed the term "marine" to be synonymous with "naval," and with that dismissed the thought. I must confess to having committed the same error until about five years ago, when I learned that the U. S. Marine-Hospital Service is a distinct entity, with no nearer relation to the U. S. Navy than it is to the Postoffice Department. For the information of those who may still be ignorant of the fact, it may be stated that the U. S. Marine-Hospital Service is a bureau in the U. S. Treasury Department, in much the same manner as is the Army Medical Service in the War Department. The medical corps of the Marine-Hospital Service would, if its work were more generally known and appreciated, be a source of the keenest pride to our profession and our nation; and, therefore, it is especially pleasant to me to be able, in my humble way, to help dissipate the clouds which apparently obscure the view of so many of our professional brethren.

At present the medical corps of the Marine-Hospital Service consists of about ninety medical officers, not including contract physicians at minor ports. The members of the regular corps receive their appointment from the President, after passing a rigorous, searching examination as to physical condition as well as literary and medical training. An average grade of 80 per cent. in all branches is required, and only those who have attended these examinations can form an adequate idea of their completeness and utter impartiality. No wonder, then, that the corps consists of a body of gentlemen who, as regards intellectual attainments and professional ability, are the peers, nay, the superiors, of any similar corps the world over. Obviously the work accomplished by such a body of men can be limited only to the boundaries set by law; and such is indeed the case. The quality of the work accomplished is beyond reproach. Perhaps I seem enthusiastic in my praise, but even were it true, the enthusiasm is that which is aroused by contact with unselfish devotion to duty, such as is shown by these officers under all circumstances; for of this I saw numerous instances during service as interne at one of the marine hospitals on the Great Lakes, and hence feel fully justified in my enthusiasm.

To quote from the Annual Report (1898) of the supervising Surgeon-General of the Marine-Hospital Service, the duties devolving on the medical corps are:

1. The management of hospitals and relief-stations for the care of sick and disabled seamen of the merchant marine of the United States. During the last fiscal year (1898) over 52,000 seamen received medical and surgical care at these hospitals and relief-stations.

2. The active management of the national quarantine stations, including the steam-vessels belonging thereto. These national quarantine stations, particularly in the South, are the refuge stations for neighboring local quarantines, and for a large number of years have done the greater part of the actual cleansing and disinfecting of infected vessels. In the last nineteen years their hospitals have, with but few exceptions, received and cared for all the yellow-fever patients taken from vessels entering United States ports. These national quarantine stations are eleven or twelve in number.

3. Inspection of local quarantines, under act of Feb. 15, 1893.

4. Investigation of reported cases of epidemic disease, including bacteriological examinations and local sanitary conditions.

5. The suppression of epidemic diseases and enforcement of the interstate quarantine regulations.

6. The collection and dissemination of mortality statistics and sanitary information. A medical officer is in charge of this division of the Bureau, and each week an edition of abstracts has been issued and transmitted to all quarantine officers of the United States, to State and local boards of health, collectors of customs, and to consular officers abroad.

7. Scientific investigation into the causes of disease. At Washington the service conducts a pathologic and bacteriologic laboratory, admirably equipped for the purpose, where officers of the Service may receive special instruction. Opportunities for similar work are also granted to properly accredited representatives of boards of health. Analyses of public water-supplies, as well as pathologic and bacteriologic diagnoses, are made here, and original research of a very high order is being conducted almost continuously by members of the corps; but these by no means complete the surprisingly large list of activities of this appropriately named "Hygienic Laboratory.

8. The examination of pilots for color blindness. In the year 1898 about 1100 pilots were examined.

9. Physical examination of the keepers and crews of the life-saving stations; professional examination of their claims on account of disability, and their treatment in hospital.

10. Physical examination and treatment of the officers and crews of the revenue-cutter service, both prior and subsequent to enlistment, and medical and surgical service under special detail on revenue-cutters engaged in Arctic cruising or on other long voyages.

11. Physical examination of immigrants under the law excluding those afflicted with contagious disease. The report of 1898 shows that over 230,000 immigrants were inspected during the year at various ports of the United States.

12. Service in the office of consuls at foreign ports to assure the accuracy of bills of health given to vessels. Recently, because of the progress of the bubonic plague, about fifteen medical officers have been detailed to various European ports to inspect the emigrants before they embark; also the vessels, their cargoes and their crews. When satisfied as to the sanitary condition of the vessels and their contents, their bills of health are indorsed and the vessels proceed on their journey. It will be remembered that similar action on the part of the marine-hospital service was instituted in 1893, when a general epidemic of cholera seemed impending in Europe and it was feared that the Chicago Exposition would become a source of great danger to the public health. The observations and reports of the medical officers detailed to the various ports at that time were quite conclusive as to the advisability, yea, to the very necessity of such inspection being made permanent. The writer firmly believes that it is but a matter of time until Congress will pass an act investing the marine-hospital service with this as a permanent function. Let us hope that that day is not far hence; because, when these inspections are made at the foreign ports, many cases not strictly contagious, but nevertheless equally undesirable as additions to our population, can be prevented from embarking, although not in the category of cases which our immigration laws compel the transportation companies to return to their port of embarkation when refused admission at our ports

13. Miscellaneous duties imposed from time to time by the Treasury Department.

When the marine-hospital service was organized in 1798, its primary object was the alleviation of the misery and wretchedness which was the common lot of the sick and disabled seamen in strange ports where public hospitals were then unknown. Since then Congress has from time to time imposed additional duties on the service, until now these completely overshadow the former, in spite of the enormous increase in the number of seamen to whom relief has been furnished. By reason of years of quarantine experience and repeated contact with outbreaks of yellow fever, smallpox, and the like, a large percentage of the medical officers of the service have become experts in the care and handling of these diseases, and thus a mighty defense to the country against these merciless foes to life and health. Is it not, therefore, a very reasonable conservatism which admonishes us to make haste slowly in the doing of anything which will threaten the disintegration of this invaluable branch of our Government or impair its efficiency? In these days we hear much said concerning the desirability of a national board of health, presided over by a special cabinet officer. So far as I am able to discover, the proponents deal too much in glittering generalities, and apparently give too little thought to the serious concrete conditions which lie at the bottom of the matter. We are told that having a cabinet secretary at the head of our department of health would lend it greater dignity and give more weight to its mandates. Why this should be so is beyond my comprehension, for in my opinion it is the act of Congress, and that alone, which definitely fixes jurisdiction and authority in such matters, and its dignity depends on the standard of intellectuality and efficiency maintained by the department.

But why have two national departments of health? The advocates of the bills recently under consideration disclaim any desire to terminate the existence of the marine-hospital service as such; and the writer has no doubt concerning the sincerity of this disclaimer, because the service is performing many duties which a board of health would not voluntarily assume. To be brief, we would reward the fidelity and efficiency of the marine-hospital service by relegating it to the rear ranks. For what purpose? To again try the lamentable experiment of 1879 to 1883, which proved so eminently unsatisfactory to all concerned. With what result? With the result of once more demoralizing the work now so conscienciously being done, without any compensatory advantages or gains; for with two departments the inevitable concomitants would surely be: frequent conflict of authority in minor and major matters and consequent friction, together with indefinite location of responsibility; and they are results of no small degree of importance and peril. Let us, then, give to this subject our serious consideration of all its phases and, in obedience to the calm dictates of our better judgment, put aside the temptation to further experiment and unite in our efforts to make our present department of health more comprehensive in the scope of its usefulness. This we can do by urging on Congress the passage of acts granting all further necessary powers to the marine-hospital service, and appropriations sufficiently liberal to carry them into complete execution. In this way we will avoid multiplicity of departments, the uneconomic expenditures necessary for their support, and confusion of duty and responsibility, while we will continue to maintain in its integrity a department which has so faithfully observed the spirit as well as the letter of its orders. Having shown such rare fidelity in the past, we may confidently anticipate that the marine-hospital service will reflect still greater glory on our country and our noble profession when intrusted with larger responsibilities.

It may be a matter of general interest that the marine-hospital fund is replenished from the receipts from the tonnage tax, and that this tax in the fiscal year 1898, amounting to about $844,000, exceeded the total expenditures of the service by over $88,000. This certainly bespeaks an exceptionally economic administration, considering the manifold duties performed by the service, especially during the yellow fever outbreak in the South in the fall of 1897, and during the Spanish War, when our intimate intercourse with Cuba raised serious apprehensions for the safety of our country's health.

In the preceding paragraphs I have but briefly referred to the salient points of the subject, which is too broad to be dealt with in detail in a letter, and trust that a recital of them will lead the acquisitive mind of the reader to give this highly important matter the consideration which it merits.

In conclusion, I assume to hold no brief for the marine-hospital service, nor do I assume that it stands in need of defense, but my sense of justice murmured at the apparent absence in our profession of a proper knowledge of the work being done by this medical corps and at the consequent lack of the appreciation which duty well done deserves; and if this hasty superficial sketch succeed in drawing more general attention to the high order of efficiency attained by this unostentatious company of defenders of the health of our great country, I will feel more than compensated in the enjoyment of that refreshing sense of satisfaction which comes to him who knows that he has given "honor to whom honor is due."

Very respectfully,

L. P. H. BAHRENBURG, M.D.

Department of Public Health.

MILWAUKEE, WIS., March 6, 1900.

To the Editor: It seems desirable at this time to call the attention of members of the ASSOCIATION to the fact that the Committee on Department of Public Health is actively engaged in attempting to have passed, by the present Fifty-sixth Congress, the bill which has been indorsed by the ASSOCIATION at two or three of its last meetings. The bill now before the present Congress is known as the "Spooner-Ray Bill" (S. 1440; H. R. 6618), introduced in the Senate by Mr. Spooner of Wisconsin, and referred to the Committee on Public Health and National Quarantine, and introduced in the House by Mr. Ray of New York, and referred to the Committee on Interstate and Foreign Commerce.

This bill is in every way identical with the one which was presented, together with the report of the committee, to the ASSOCIATION at Philadelphia, Denver and Columbus, and at which times the ASSOCIATION voted to adopt it. As stated by the committee on these occasions, it was utterly impossible to find a member of Congress who would father a measure to create a "Department of Public Health with a Secretary in the President's Cabinet." The Chairman of the committee was one of the last to give up this idea and worked faithfully for it for a number of years, but found it absolutely impossible to accomplish this end, and was frankly told by members of Congress that if the ASSOCIATION insisted on that proceeding they would succeed in getting no legislation at all. It was finally agreed, and the ASSOCIATION adopted the report of the committee relating to this matter, that it was better to have a bureau of Public Health in one of the departments than to have no national public health organization at all. Again, there may be advantages in a bureau of public health that do not exist in a department. It is desirable to remove such an organization as far from politics as possible, and a bureau, with its head appointed once in six years, would be much less liable to be influenced by politics than a department with a secretary to be appointed by each incoming president. So far as the practical workings of the organization are concerned, there can be no possible disadvantage in a bureau; the same results will accrue, and perhaps better results than in a department, and it is doubted by many if very much honor will result to the profession by having it represented in the cabinet of the President of the United States. In fact, the medical profession has not been a profession that in times past has cared so much for honor in public places, and a high-sounding title, but has prefered to do its work in a manner suggested by the meek and lowly Nazarene, whose followers all true physicians are or should be.

The operations of the Spooner-Ray Bill, if enacted into a law, can not fail to be of great advantage to the sanitary advancement of the country. Providing, as it does, for a medical head, who shall be well qualified for the position, and an advisory council consisting of one member from each state and territorial board of health, it practically makes a national organization of sanitary experts who are to devise ways and means for best meeting emergencies of an unsanitary nature, as they may arise, and for the study and investigation of the causes and prevention of infectious diseases both in this country and abroad. It has been suggested that if the new "Department of Commerce and Industries" is created, the Bureau of Health provided for by this bill, as well as many other bureaus now in the U. S. Treasury Department, will be placed under the supervision of that new department, thus relieving the Treasury Department, and this can not fail to be a great advance in national functions, as well as to remove these various bureaus and services as far from strictly political influence as possible.

While it is true that much time has elapsed since efforts were first put forth by the ASSOCIATION to obtain some legislation of this kind, yet public sentiment was probably never stronger than at present, and the prospects never brighter than now for securing the passage of this measure, providing the members of the profession in the various states will now do their utmost to influence their members of Congress to vote for it. The bill will undoubtedly be taken up in the Senate first, and very soon, and now is the time to urge Senators to give their attention to the matter. After it passes the Senate, which we trust and believe it will, then the attention of members of the House must be called to the measure, and due notice of the progress of the bill will be given from time to time in THE JOURNAL. It is trusted and believed that if members of the profession, who are in favor of this measure, will use their utmost influence with their members of Congress, this bill can be passed during the present session.

It should be borne in mind that Bill, H. R. 1011, a bill to "Create a Bureau of Public Health," introduced in the House by Mr. Mahon, is not the ASSOCIATION bill, but is a measure highly objectionable, and possesses none of the features as adopted by the ASSOCIATION. By calling attention to the measure known as the "Spooner-Ray Bill" only, no mistakes

will be made, as that is the only ASSOCIATION bill before the present Congress, and it is also the one indorsed by the American Public Health Association, the Conference of State and Provincial Boards of Health of North America, the New York Board of Trade and Transportation, and many other medical and business organizations.

U. O. B. WINGATE, M.D., Chairman.

Medicine in the Far East.

BOMBAY, INDIA, Jan. 25, 1900.

OBSTETRICS IN CHINA.

To the Editor: One of the most unfortunate consequences of the status of medicine in China is the helpless condition that the poor parturient woman finds herself in if any serious complication occurs during her labor. I saw a woman in Shanghai, who had been in labor for one week, brought into a hospital with an arm presentation. Version was performed and a dead child delivered, but the patient died three days later from sepsis. I saw another where the presentation was normal, but the disproportion between the diameters of the pelvis of the mother and the child's head were such that the latter could not pass, and where the poor woman had been in labor for six days. A craniotomy was done and the child delivered, but extensive sloughing of the bladder, rectum, and all the lower pelvic contents followed, and the patient lingered in great agony for four days and then died. At the woman's hospital in Shanghai, that is under the charge of Dr. Elizabeth Reifsynder. I saw some other cases that illustrate the butchery to which women are subjected if the unaided powers of nature will not effect their delivery.

In China the male physician never attempts to play the rôle of an accoucher. The dignity of his position, as well as the modesty of the women, prevents him from practicing this branch of our profession. All cases of labor in the Middle Kingdom are attended by a set of ignorant midwives. If the case be a difficult or prolonged one, these depend on prayers, charms and incantations to aid in the delivery of the patient. They never attempt version, and limit their manipulations for the delivery of a retained placenta to traction on the cord. The only obstetric instrument that they possess is a heavy, curved, sharp hook. In case of an arm presentation they pull on the presenting member until they sever it from the body, and then begin the extraction of the child with this crude instrument. They catch hold, in a blind manner, of anything they can reach, and pull it away, and by the time they have delivered the child, if they deliver it at all, they have generally succeeded in pulling away the lower segment of the uterus, opening into the peritoneal cavity and doing such other violence to the soft parts of the woman that she usually dies soon after her delivery, if not before.

Dr. Reifsnyder is one of the most celebrated obstetricians in all China, and is doing a noble work in her line. Her hospital for women and children is the cleanest and best arranged of any that I saw in that country. She runs it on a strictly nonsectarian plan and, hence, feels herself at liberty to beg everybody for money, of which she seems to have an abundance. She has a great many septic cases to deal with, that are infected before being admitted into her hospital. In the management of these cases, if seen early, she uses the blunt curette, once, cleans out the uterus, and irrigates it with a carbolic acid solution. After that she depends on the use of alcohol in some form as a stimulant, and uses no other internal medication. The Doctor has an immense number of out-door patients, and when I expressed my surprise that she could attend to so many of them, in so short a time, she said they were nearly all affected with either the ague, the itch, or worms, and that that fact greatly simplified her work. Patients come for hundreds of miles around Shanghai, suffering from malaria, and after a month's intelligent administration of quinin she sends them home so wonderfully improved that her reputation is being spread far and near.

A HONGKONG HOSPITAL.

In Hongkong I visited the civil hospital, an institution where as cosmopolitan a class of patients can be found as one would be able to meet anywhere on earth. The building is a fine one and cost more money than any institution of its kind in all China. Dr. Atkinson is the physician and surgeon in charge, and I found in him the true type of the polite Englishman, with whom one feels at once at his ease and perfectly at home. I was impressed in this hospital by the peculiar manner in which the patients were divided in the allotment of the wards, where they were treated. Although they represented every shade of complexion from that of the blackest negro to a red-headed Irishman, there was no color line in this division as there would have been down in Dixie. They were arranged in wards according to the peculiar diet that each one would eat. Some Chinese will eat meat and some will not, so it took two different wards to accommodate these two classes of Celestials.

The Europeans had their own quarters, and the Sikhs had theirs. In Dr. Atkinson I found another strong advocate of the let alone treatment of typhoid fever; but I did not fall in love with his plan, especially after he told me that he lost 25 per cent. of all the patients treated.

The nurses in this institution are all importations from the British Isles, and have all had a thorough training. Beri-beri, diarrhea and malarial fever were the principal diseases from which the patients in this hospital were suffering.

Dr. Atkinson's mode of administering quinin in the treatment of the last named disease is somewhat different from that usually followed. He gives one dose only—5 grains—of the drug, in the twenty-four hours, and is indifferent as to what time of day he gives this, or its relation to the intermissison or exacerbation of the fever.

The best purely Chinese hospital that I visited in all China is the Tung Wah in Hongkong, and the most intelligent native physician I have met in all the Middle Kingdom is Dr. Chung-Kung-we, who is at the head of this institution. He was educated at the Chinese medical school at Tientsien, after passing a preliminary examination where there were more than 200 applicants for the position. Except in the matter of their not being able to dissect the human body, he claims that the course of study in this school is fully abreast of the best colleges in the western world. The Doctor is at the head of a movement that has for its object the permission to use the bodies of criminals for anatomical research.

BERI-BERI.

I saw in this hospital 40 cases of beri-beri. The disease is generally ushered in by a marked chill, and this is followed by a febrile stage that lasts from two to four days. The temperature now falls, and symptoms of a profound depression of all the vital forces ensue; accompanied by a weak circulation, and sometimes a profound shock. Following this are symptoms of paresis affecting the whole nervous system, but more especially the lower extremities. The Doctor divides the cases into the dry and wet, depending on whether or not they have a tendency to the development of general dropsy. The cases are treated entirely symptomatically. In the febrile stage they are given arterial sedatives and bromids. When symptoms of depression come on they are given digitalis, camphor and strychnin, and of the last remedy the patients are so tolerant that 10 grains at a dose is often given at short intervals. I accompanied the Doctor to see a body just dead from the dropsical variety of beri-beri. I never saw a more complete case of general anasarca. When we entered the room we found a Buddhist priest conducting a religious service over the remains. This consisted in the burning of incense, the placing of food and flowers at its feet, accompanied by much wailing on the part of the assembled relatives. As we turned to go away the Doctor remarked, "What stupidity!" I replied: "Then I suppose you are not a Buddhist?" "No," he said, "not a bit of it. I am a free-thinker, as all educated Chinamen are, and we look on all religions as bosh and nonsense and as only believed in because the mass of mankind have not yet advanced far enough in the intellectual scale to do their own thinking."

CHINESE THERAPY.

Each patient, when he enters the Tung Wah Hospital, has the right to choose whether he will be treated by a native doctor, who uses only Chinese remedies, or Dr. Chung, whose modes are strictly western. Fully 70 per cent. of the 150 patients in the wards at the time of my visit chose to be treated after the manner of their forefathers.

I spent some time looking over the drug room connected with this hospital, and the prescriptions that are sent there for preparation, and the manner in which they are prepared. Ar-

ranged along one side of this room were about fifty charcoal braziers, on top of which, in porcelain dishes, the prescriptions for the day were being boiled. I examined several of these, and Dr. Chung told me of the contents. They were real shotgun affairs. Seven was the least number of ingredients I found in any one of them and some of them ran up into the twenties. As a part of every compound there were aromatics, such as cinnamon, ginger, mace, allspice and the like. To the compound of roots, leaves, and barks that went to make up these prescriptions, there was added one pint of water, and after this is evaporated to about one-half by boiling, the whole residue is given to the patient at one dose, administered early in the morning, before he has taken any food, and no other medicine is given until the expiration of twenty-four hours. I found the dung of animals a frequent ingredient in these prescriptions, but these substances were usually mixed with some kind of gum, made into pills, and given in this form. Such sized pills as are given the patients could never be gotten down the throat of an Anglo-Saxon.

At the civil hospital I saw a case of hydrophobia that Dr. Atkinson had given up as hopeless. The patient was being treated by a Chinese doctor, whose remedy was a decoction of elephant's dung, and his futile efforts to get a pint of this disgusting liquid down the throat of his patient was one of the most sickening spectacles I ever witnessed. The old school Chinese doctor, while willing and anxious to dose his fellow countrymen with his nauseous medicines, is quite willing to turn his surgical cases over to Dr. Chung. I saw the latter do a lateral perineal operation for stone in the bladder, and as the stone was a large one I suggested the suprapubic operation as the most rational one. To this mode he most decidedly objected, giving as his reason that, about one year ago, a distinguished London specialist had operated twice for him after this mode of procedure, and both of the patients had died. Over one-half of all those who enter this hospital either smoke opium or take it by the mouth. In the case of chronic bowel troubles that play such an important rôle among the sick here, this fact greatly complicates the treatment, for with this class of patients the efficacy of this valuable drug is entirely lost.

RED CROSS HOSPITAL.

While in the city of Canton I made a visit to the Red Cross Hospital, one of the oldest institutions of its kind in all China. For many years this hospital was under the supervision of Dr. Kerr, a man well known all over the missionary and medical world for his piety as a Christian and his skill as a surgeon, and especially the surgery that pertains to vesical calculus. The Doctor has lately severed his active connection with this hospital and is devoting the last days of his life to the establishment of an insane asylum, for the treatment of a class of cases that, in China, are usually left entirely uncared for.

One of the attending physicians at this institution told me that Dr. Kerr had operated for stone more times than any man living or dead. However, the statistics of the Red Cross Hospital do not seem to verify that assertion; for by the reports before me I find that for the years 1895 to 1898, inclusive, there was an average of fifty lithotomies and twenty litholapaxies done each year, and of the former four patients died, and of the latter two were lost. Here, as in Hongkong, the operation for stone is done by the perineal route, and in the report referred to nearly one-half of the few patients whose calculus was removed by the suprapubic incision died. These bad results are undoubtedly due to some faulty technique, as well as some error in carrying out rules of clean, aseptic surgery, which is very seldom accomplished in China.

PREVALENCE OF VESICAL CALCULUS.

I am at a loss for an explanation as to the cause of the extreme frequency of vesical calculus in the Far East, especially in China, Ceylon and India, and no one with whom I have conversed on the subject seems able to enlighten me. Of one thing, however, I am well convinced, and that is, that in a country where clean surgery is so hard to do, lithotripsy is the best operation for a vast majority of these patients, and when surgeons become as skilled in the use of the lithotrite as Dr. Pank of Jeypore, or Dr. Anderson of Agra, cutting operations of all kinds will be largely dispensed with in the management of cases of stone in the bladder. In fact, after seeing the work of these two men, I believe that even M. Guzon of Paris, in whose clinical service I have had a considerable observation, could widen his field for the use of the lithotrite, greatly to the benefit of many of his patients, on whom he now does a lithotomy.

SURGERY IN CHINA.

The surgeons in the Red Cross Hospital in Canton claim to do more surgery than is done in any institution of the kind in all China. Their report for 1898 shows a total of 2000 operations, but as they count every tooth extracted, the real surgical operations that they do are greatly diminished. In fact, Chinese submit with great reluctance to any surgical operation of a serious character. While I was an attendant at the service of Dr. Boone at St. Luke's Hospital, Shanghai, a Chinaman was brought in with his leg so badly crushed that an amputation was thought necessary. The patient, however, refused to submit to the operation, and was taken away by his friends and put under the care of a native doctor. Dr. Boone told me that this was not an infrequent occurrence.

The rage to open the peritoneal cavity does not seem to have struck China, or if it has, there seems to be no opportunity to gratify this passion, for in the hospitals I visited, not a laparotomy a year is done. As for appendicitis, it either does not exist, or is unrecognized in the Far East, for I only saw one case in all my observations where there was any thought of operating for this very fashionable disease of the western world.

USE OF OPIUM IN CHINA.

I have tried, by every avenue to which I have had access, to ascertain to what extent the Chinese as a race are addicted to the use of opium. In the West, we associate this habit as practiced by the Chinese, with an opium den, where the drug is smoked. This is a wrong idea, for here at home it is only the Chinese who have some money, or can earn more than the common coolie, who can indulge in this luxury. The great mass of those who use the drug, use it in a more economical manner, that is, they take it by the mouth. The investigations carried on by the government show that the opium habit varies greatly in different localities. In some only one in five of the population use this narcotic, and in others, there are four out of five that use it. In a small Chinese hospital in Shanghai, 200 patients were brought in during the past year in a condition of deep opium narcosis, and of this number fifty died. Sitting on a bench in a public park, riding in a jinriksha on the street, or seated among his wares in a dealer's shop, it is not an uncommon sight to see a Chinaman fall into a deep slumber, from which he can only be aroused with considerable difficulty, because he is profoundly under the influence of opium. I think it can be safely asserted that one-half of all the adult males, and one-fourth of all the women in all China use this drug in some form or other. The strangest part of the whole affair is that those who indulge believe that it conduces to their health and longevity, and have no desire to break it off.

USE OF OPIUM IN INDIA.

In India, poor women who must leave their children in their houses and go to the field to work are in the habit of giving them opium to keep them quiet. At about 2 years of age the mother begins the task of breaking off this habit with her child, and during the next six months it is computed that 40 per cent. of these children die of bowel trouble. Among the adult males in all the vast Indian Empire, this habit of opium-taking is widespread. A man is classified as a one, two or three pi man, according to the size of the dose of opium he can afford to take daily. The idea that the use of this drug has a tendency to ward off disease is one that is widely entertained in India. Major Upcott, who is at the head of all the government railway construction in this country, told me that without the use of opium among the coolies he employs, it would not be possible for them to work in the malarial jungles through which he had to build the railroads. Consequently, he dealt out rations of opium to his laborers, just as he did their rations of rice.

W. S. CALDWELL, M.D.

"Texas Medical Journal."—In our Current Medical Literature Department, in THE JOURNAL for March 3 (p. 549), through a typographic error the *Texas Medical News* is credited with certain papers which appeared, instead, in the *Texas Medical Journal* for February.

Deaths and Obituaries.

JOHN A. MURPHY, M.D., Cincinnati, O., died February 28, of heart failure. He was born in 1824, in east Tennessee, received his literary education in the old Cincinnati College, and in 1843 began the study of medicine. He graduated from the Ohio Medical College in 1846, and for the next year was one of the resident physicians of the Cincinnati Hospital. He went to Europe in 1853 to continue the study of medicine. He was one of the founders of the Miami Medical College, holding the chair of materia medica; he also held this position at the Ohio and Miami colleges in 1857. At the independent reorganization of the Miami College in 1865, he was elected professor of practice. In connection with Drs. Mendenhall and E. B. Stevens, he established and edited the *Medical Observer*. During the War of the Rebellion he was a member of the board appointed by Governor Tod to examine candidates for medical positions in the state regiments. For the next three years he was acting assistant-surgeon in charge of the United States Marine-Hospital for Cincinnati. For many years he was a member of the medical staff of the Cincinnati Hospital. He was at one time president of the Ohio State and Cincinnati medical societies. He retired from active practice about ten years ago. During the last year he has been a member of the board of trustees of the Cincinnati Hospital. At a meeting of the medical profession, March 1, suitable resolutions were passed testifying to the universal regret occasioned by his decease.

ALLEN A. RAWSON, M.D., died February 26, at Corning, Iowa. He was born in Tiffin, Ohio, in 1831, and was a graduate of Rush Medical College, Chicago, class of 1855. He was the first physician to locate in Adams County, Iowa, and was prominent in educational matters in his district.

JAMES MUIR, M.D., Bardstown, Ky., died February 23. He was a graduate of the University of Louisville in 1850, and was in active practice until within a few weeks of his death.

WM. HUFF OGIER, M.D., died February 24, at Columbus, Ohio, aged 29 years. He was a graduate of the Bellevue Hospital Medical College, had been one of the surgeons of the Woman's Hospital in New York City, and had lately been associated with Dr. Wm. Pryor of New York as clinical assistant in the Policlinic and Post-Graduate School.

THOMAS KIMLIM, M.D., died February 24, at Quincy, Ill. He served in the Union Army during the Civil War. He was 62 years old, and practiced medicine in Trenton, Mo., for thirty-five years before removing to Quincy, when he retired from active practice. He was a prominent Mason and member of other societies.

RICHARD J. MOORE, M.D., Pasadena, Cal., died February 23, at the age of 60. He was a graduate of the Keokuk (Iowa) Medical College, 1861, and served as surgeon during the Civil War. He practiced in Fairfield, Iowa, for a number of years, but had been a resident of California since 1887.

ELIAS T. DORLAND, M.D., Buffalo, N. Y., died February 20, at the age of 68. He was a graduate of the University of Michigan, had lived in Buffalo since 1866, and was at one time president of the Erie County Medical Society.

HOWARD STAFFORD BOWIE, M.D., died in Baltimore, Md., February 26, aged 54. He was a native of Maryland, and a graduate of the School of Medicine of the University of Maryland, class of 1870.

J. M. HANGER, M.D., Staunton, Va., dropped dead in his stable on February 25. He was 66 years old, and a native of Augusta County, Va.

ARTHUR WATSON, M.D., died at Onancock, Va., February 25, at the age of 82. He represented the county of Accomac in the legislature for several years.

We also note the following deaths:

Lee M. Alexander, M.D., Marshall, Mo., February 26.

John B. Amman, M. D., February 27, at Scranton, Pa., at the age of 57.

Wm. Campbell, M.D., Port Huron, Mich., February 21, at the age of 86.

A. W. Graydon, M.D., a politician and former practicing physician in Cincinnati, Ohio, February 28.

W. A. T. Holmes, M.D., Kirklin, Ind., died February 24, of pneumonia, aged 61 years.

B. O. Hopkins, M. D., Burlington, Kan., at the age of 65.

DEATHS ABROAD.

WM. MCNEIL WHISTLER, M.D., died February 28 in London, England, at the age of 63 years. He was a brother of the famous artist, a graduate of the University of Pennsylvania, and had been for a number of years practicing in London, largely in the specialty of laryngology. He was a lecturer on the diseases of the throat and nose, in the London Post-Graduate School, and a member of numerous societies in this country and Europe. Early in life he took a course in engineering, but later adopted medicine as a profession. He served in the Confederate Army during the Civil War.

THE JOURNAL recently reviewed (February 17, p. 421) an interesting communication on "Immune-Serum Against Spermatozoa," by W. Moxter, and we have now to announce the death of the young scientist from acute miliary tuberculosis.

L. MEYER, a prominent alienist and professor at Göttingen, died recently, in his 73d year.

Miscellany.

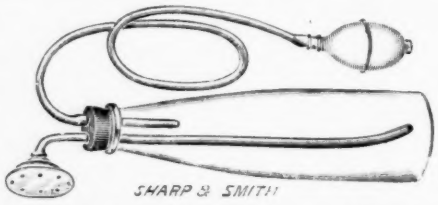
Plague Doctor in 1721.—The physician who attended cases of the plague during the epidemics of the early part of the Eighteenth Century was obliged to carry a peculiar stick or cane to warn the public of his calling, and wore for his own safety a gown of "levant morocco," with hat and gloves of the same, the face also covered, with crystal eye-pieces for windows through which he looked out, and a long beak like a stork's, with two holes in the tip, filled with aromatic drugs and ointment. This costume is illustrated in Jean Manget's "Treatise on the Plague," published in 1721, and reproduced in *Echo Méd.* of February 18, which also quotes at length from a medical writer in the preceding century, who attributed his immunity to the plague—in spite of his constant care of plague patients—to his practice of smoking several pipes of tobacco a number of times during the day.

Self-Inflicted Wounds Among Troops in the Philippines.—A circular from Headquarters, Department of the Pacific and Eighth Army Corps, Manila, P. I., Jan. 10, 1900, publishes the following letter from Lieut.-Col. A. A. Woodhull, deputy surgeon-general, U. S. A., chief surgeon of the department: "Self-inflicted wounds of the hand and occasionally the feet, claimed to be accidental, usually occurring on outpost, are so frequent that I have the honor to suggest that all such cases be carefully investigated by a board of survey similar to that called in case of desertion, to determine the circumstances under which they actually occurred, and especially in relation to the line of duty. All of these men become disabled for military duty with usually a minimum amount of maiming for civil occupation, and thus secure discharge." The circular requires that all cases of this character, or cases in which it is believed that wounds have been self-inflicted, will be properly investigated and report made to the general commanding.

The Samuel D. Gross Prize.—No essay which the trustees deemed worthy of the prize having been received on Jan. 1, 1900, they announce that the prize will be awarded on Oct. 1, 1901. The amount is $1000. The conditions annexed by the testator are that the prize "Shall be awarded every five years to the writer of the best original essay, not exceeding one hundred and fifty printed pages, octavo, in length, illustrative of some subject in Surgical Pathology or Surgical Practice, founded upon original investigations, the candidates for the prize to be American citizens." The competitor who receives the prize shall publish his essay in book form, and deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery. On the title page it shall be stated that to the essay was awarded the Samuel D. Gross Prize of the Philadelphia Academy of Surgery. The essays, which must be written by a single author in the English language, should be sent to the "Trustees of the Samuel D. Gross Prize of the Philadelphia Academy of Surgery, care of the College of Physicians, 219 S. 13th St., Philadelphia," on or before Oct. 1, 1901. Each must be distinguished by a motto, and accompanied by a sealed envelope bearing the same motto, and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful

essay. The Committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year. The Committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

An Omission.—The accompanying cut should have appeared in Dr. John E. Owen's paper on "The Value of Formaldehyde



in the Disinfection of Buildings, Rooms and Cars," which was published in the issue of March 3. Reference to the appliance is made on page 520, top of first column.

Health and Proximity to Sewage Farms.—The health of the persons residing on or near the sewage farms around Berlin is carefully watched by the sanitary authorities, and the report for 1899, signed by Virchow, announces that the nature and course of the affections observed among the 7834 employees and 31,033 resident population, do not differ in any respect from those prevalent in other rural districts, and that they are no more frequent. No field is taken for the purpose without careful study of the springs on the land, and the cultivation is made to bend to the necessity of keeping the best springs intact. Fifty-seven tests of the water draining off the farms showed the entire absence of the usual pathogenic germs.

Queries and Minor Notes.

THE "METROPOLITAN" DIPLOMA-MILL.

PRAIRIE GROVE, ARK., Feb. 23, 1900.

To the Editor:—The Board of Medical Examiners for this county wish to know the standing of the "Metropolitan," said to be a medical college in Chicago. An irregular practitioner in this (Washington) county has been fined and is again indicted for illegal practice. He disappeared for a short time and now returns, claiming to have a diploma from the above school. Under our law a record of a diploma from a reputable school legalizes the applicant, and, unfortunately, the county clerk is made the judge of the character of the school. E. G. M.

ANSWER.—See THE JOURNAL for Oct. 21, 1899, p. 1054, which will answer this question. The "Metropolitan" is a successor to the "Independent Medical College," which was suppressed last fall. It is simply a diploma-mill.

The Public Service.

ARMY CHANGES.

Movements of Army Medical Officers under orders from the Adjutant-General Office, Washington, D. C., Feb. 16 to 21, 1900, inclusive:

Walter K. Beatty, acting asst.-surgeon, from Washington, D.C., to the Department of California.

William C Borden, captain and asst.-surgeon, U. S. A., to report at Washington, D. C., for examination for promot'on.

Edward C. Carter, major and surgeon, U. S. A., member of a promotion board at Fort Myer, Va.

Elmer A. Deane, acting asst.-surgeon, from the Department of California on the first available transport to Manila, P. I., for duty in the Department of the Pacific and 8th Army Corps.

William R. Hall, major and surgeon, U. S. A., appointed president of the board convened at Manila for the examination of candidates for appointment in the medical corps of the army.

James H. Hepburn, acting asst.-surgeon, from Washington, D.C., to the general hospital at Fort Bayard, N. M.

James M. Kennedy, captain and asst.-surgeon, U. S. A., previous orders directing him to proceed from San Francisco, Cal., to Manila, P. I., revoked.

Egon A. Koerper, lieutenant-colonel, deputy surgeon-general, U. S. A., retired from active service, February 21, 1900.

Louis A. LaGarde, major and surgeon, U. S. A., leave of absence granted.

Palmer H. Lyon, acting asst.-surgeon, from New York City to San Francisco, Cal., for duty in the Department of California.

Robert C. Macy, acting asst.-surgeon, from the Department of Santiago and Puerto Principe, Cuba, to Mobile, Ala., for annulment of contract.

James C. Merrill, major and surgeon, U. S. A., member of a board in Washington, D. C., to examine persons designated for appointment as paymasters in the army.

John L. Phillips, capain and asst.-surgeon, U. S. A., to report at Washington, D. C., for examination for promotion.

Walter Reed, major and surgeon, U. S. A., member of examining boards at Washington, D. C., and Fort Myer, Va.

Charles Roemmelt, acting asst.-surgeon, from Elmira, N. Y., to the Department of California.

Thomas C. Stunkard, acting asst.-surgeon, from the general hospital, Presidio of San Francisco, Cal., to Terre Haute, Ind., for annulment of contract.

Jerome B. Thomas, acting asst.-surgeon, from Brooklyn to Fort Slocum, N. Y., to sail with troops on the transport *Sumner*, reporting in Manila, P. I., for duty in the Department of the Pacific and 8th Army Corps.

NAVY CHANGES.

Changes in the Medical Corps of the U. S. Navy for the week ending Feb. 24, 1900:

Pharmacist R. Waggener, granted sick leave for four months.

Asst.-Surgeon J. R. Murphy, appointed assistant-surgeon.

Asst.-Surgeon Karl Ohnesorg, ordered to temporary duty at the Naval Academy.

Medical Director W. G. Farwell, commissioned medical director from Jan. 22, 1900.

Medical Inspector D. N. Bertolette, commissioned medical inspector from January 22, 1900.

MARINE-HOSPITAL CHANGES.

Official list of the changes of station and duties of commissioned and non-commissioned officers of the U. S. Marine-Hospital Service for the 7 days ended Feb. 22, 1900:

Surgeon F. W. Mead, granted leave of absence for 7 days from February 26.

Surgeon H. R. Carter, to proceed to Havana, Cuba, and resume duties as quarantine officer.

P. A. Surgeon G. M. Guitéras, upon being relieved by Surgeon H. R. Carter, to proceed to Mantanzas, Cuba, and resume duties as quarantine officer.

Surgeon J. C. Perry, detailed as chief quarantine officer of the Philippine Islands, and quarantine officer at the port of Manila.

P. A. Surgeon M. J. Rosenau, detailed to attend the meeting of the Medico-Legal Society at New York City, Feb. 21 and 22.

Asst.-Surgeon E. R. Edson, relieved from duty at the Reedy Island quarantine station, and directed to proceed to the Gulf quarantine station for duty and assignment to quarters.

HEALTH REPORTS.

The following cases of smallpox, yellow fever, cholera and plague, have been reported to the Surgeon-General, U. S. Marine-Hospital Service, during the week ended March 2, 1900.

SMALLPOX—UNITED STATES.

Alabama: Mobile, Feb. 17-24, 3 cases.
Florida: Jacksonville, Feb. 17-24, 2 cases.
Illinois: Rockford, Feb. 16-17, 2 cases.
Indiana: Evansville, Feb. 17-24, 3 cases; Indianapolis, Feb. 17-24, 2 cases.
Kentucky: Louisville, Feb. 15-22, 4 cases.
Louisiana: New Orleans, Feb. 17-24, 55 cases, 23 deaths.
Mississippi: Greenwood, Feb. 10-17, 87 cases.
New York: New York, Feb. 17-24, 2 cases.
Ohio: Cincinnati, Feb. 17-23, 1 case; Cleveland, Feb. 17-24, 20 cases; Youngstown, Feb. 17-24, 1 case.
Utah: Salt Lake City, Feb. 17-24, 1 case.
Virginia: Portsmouth, Feb. 17-24, 6 cases, 2 deaths.
Washington: Spokane, Feb. 17-24, 9 cases; Tacoma, Feb. 10-17, 9 cases.

SMALLPOX—FOREIGN.

Brazil: Rio de Janeiro, Jan. 12-19, 29 deaths.
Canada: New Brunswick—Restigouche Co., Jan. 16-Feb. 3, 73 cases; Gloucester Co., Jan. 25-Feb. 8, 39 cases; Northumberland Co., Feb. 1, 1 case; Westmoreland Co., Jan. 18-Feb. 3, 3 cases. Ontario—Amherstburg, Feb. 2-24, 1 case. Quebec—Gaspe Basin, Feb. 6-15, 4 cases.
France: Lyons, Jan. 27.-Feb. 3, 2 deaths; Paris, Feb. 3-10, 4 deaths.
Germany: Königsberg, Jan. 27-Feb. 3, 1 case.
Gibraltar: Feb. 11-18, 3 cases.
Mexico: Mexico, Jan. 28-Feb. 11, 24 cases, 19 deaths.
Spain: Corunna, Feb. 3-10, 3 cases, 1 death; Madrid, Jan. 20-Feb. 3, 21 deaths.
Straits Settlements: Singapore, Jan. 6-13, 1 death.

YELLOW FEVER.

Brazil: Rio de Janeiro, Jan. 12-19, 16 cases, 6 deaths.

CHOLERA.

Arabia: Oman, Jan. 11, generally prevalent and spreading.

PLAGUE.

Madagascar: Tamatave, Dec. 16-23, 1 case, 1 death.

PLAGUE—U. S. INSULAR POSSESSIONS.

Hawaii: Honolulu, Jan. 23-Feb. 19, 6 cases, 5 deaths.

CHANGE OF ADDRESS.

ERRATUM.—Through an error in THE JOURNAL of February 17, a change of the address of Dr. M. H. Blackburn, of Dover, Ill., was given. This should have referred to Dr. R. S. Blackburn, who has removed from Breeds to Ray, Ill.

J. L. Benepe, Willoughby Building to Imperial Hotel, Indianapolis, Ind.

J. T. Smith, 69 Washington Street to 184 Dearborn Street, Chicago, Ill.

A. Hoffman, Chicago, Ill. to Petoskey, Mich.

J. M. Edwards, 1127 W. Madison Street to Hotel Morrison, Chicago, Ill.

M. W. Bland, 1127 W. Madison Street to Hotel Morrison, Chicago, Ill.

S. W. Fain, St. Petersburg, Fla., to Dandridge, Tenn.

T. F. Beverige, Bridgewater, S. D., to 4155 Grand Boul., Chicago, Ill.

C. Parkhill, 1331 17th Avenue to Jackson Block, Denver, Colo.

C. W. Taylor-Goodman, Saginaw, Mich., to Seattle, Wash.

O. L. Suggett, Flora, Ill., to S. E. Cor. Jefferson Avenue and Olive Street, St. Louis, Mo.